

Public Places Through the Private Eye

by Zsuzsanna Gaspar

BSAD

Massachusetts Institute of Technology

Cambridge

June 1989

Submitted to the Department of Architecture in partial fulfillment of the requirements of the degree of Master of Architecture at the Massachusetts Institute of Technology
May 1993

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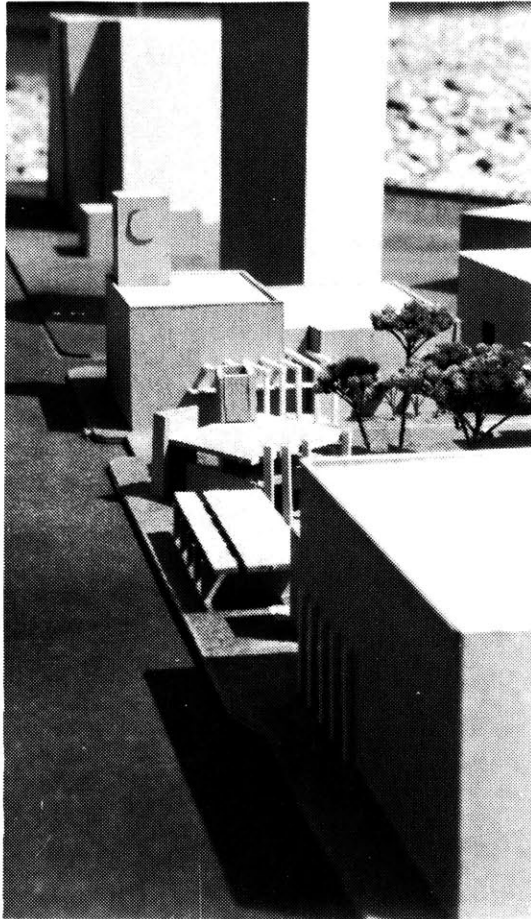
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ABSTRACT

The radical change in the pattern of everyday communication has corresponded with a rapid transformation of the character of public urban places and the way they are used. The urban network is no longer the primary space for and means of communication as it was before the introduction of television, computers and other electronic media; its role needs reevaluation.

This thesis offers a brief summary of public places, considering their physical and institutional development and their dimensional and functional characteristics as a determining factor in their success. Examples are used to demonstrate the relevance of continuity within the city as well as the importance of a projected institutional image.

These observations and analyses become the platform from which a proposal for the new entrance to MIT at Kendall Square is developed.

The main element of the proposal is the MIT Museum, which houses the world's largest holography collection. The site, located at the threshold where the Massachusetts Institute of Technology meets the city of Cambridge, plays an important role in the life of the Institute, and it informs MIT's relationship to Cambridge and Boston, becoming a significant public joint at the scale of the city, both formally and functionally.

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To friends who helped me with the production of this document: Marnie Boomer, Geoffrey Moussas and Daniel Toffolo - thank you all!

To my brother, George Paris, for feeding and entertaining me during this past year - you are great!

Finally, I dedicate this thesis to my mother, Zsuzsanna Orendi. Distance did not diminish the strength of support she offered - it does not diminish gratitude either.

TABLE OF CONTENTS

Abstract	Page 3
Acknowledgments	Page 5
Table of contents	Page 7
INTRODUCTION	
Urban places, method of inquiry, contextual, institutional and physical traits	Page 11
The proposal- context, photos, historic background, program, working assumptions	Page 15
Part 1.	
PUBLIC PLACES IN THE CITY	
Public places - the European and the American paradigm	Page 29
Public places as institutions - financing, use patterns as determined by culture, institutionalization	Page 45
Public places as physical entities - definition and function, containments and continuities, traffic, multiple axality and orientation, objects, layering of definition	Page 53
The individual in the place	Page 80
Part 2.	
PROPOSAL FOR KENDALL SQUARE	
Site Analyses	Page 89
Program Elements	Page 93
The MIT Museum	Page 110
Site plan and diagrams; sections	Page 101
Appendix 1.	Page 124
Illustration credits	Page 127
Bibliography	Page 131

INTRODUCTION

1
Aerial photo of Boston (1970) with site
marked



PUBLIC PLACES IN THE CITY NETWORK

Our lives are tied to the largest infrastructure of our surroundings: the city and its public places. Public places are at the point where society, culture, and the individual meet - the manifestation of the desire to shape their own landscape and to express their relationship to nature. They become in a sense an extension of nature within the city, incorporating it, intensifying it, replacing it. The public network of the city becomes the referential framework for the *citizen*, replacing the previous framework of nature within which the village had been set.

Architecture has approached the issue of public places with varying importance of society, culture and the individual over the centuries. These three poles define the full scale to which the space has to respond to - creating an environment which is flexible enough to accommodate the changes in uses over the seasons, and over times of societal changes. This thesis is an inquiry to the possible balance of the three, with a confessed bias towards the position of the individual.

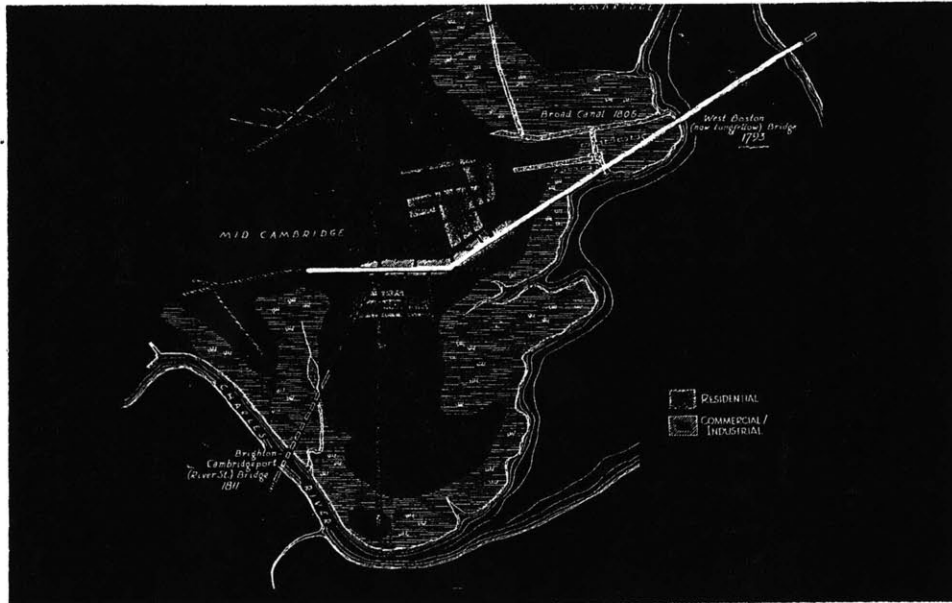
Many recent changes in the development of our cities indicate that the emphasis today is on societal ideals, resulting in places which often fail to engage the individual user in a specific way. These well-crafted but faceless places change the way we perceive and interact with our environment.

The development of public places - and indeed the development of cities - in the United States is very different from that in Europe. Unlike in Europe, the structure of the American city relies heavily on automobile traffic. As a result, the scale of cities is entirely different from historic European cities - not only in their expanse, but in the

scale of their composite elements as well. These elements, too, define a rhythm which exceeds the rhythm of comfortable human perception. Colin Rowe's book has outlined a new approach to the way we look at cities - collages of different fabrics which - by way of physical proximity and their inherent differences - enhance each other. (Rowe, Koetter, 1978) The American city is a collage indeed; but the collage of pieces of fabrics has been weakened by the singular elements - the result of real estate speculation and technological prowess. Every morning some 100,000 people ascend in the elevators of the twin towers of the New York World Trade Center. This mass, comparable to the population of a not so small city, redefines the way we think about the *city fabric* - as an organic system responding to the changes occurring in the city. Continuity in the traditional sense at this colossal scale is unthinkable. Culture and communication are enveloped within the massive structures, leaving little behind to enliven the traditional dimensions of urban places. The immense three-dimensionality of the new buildings is deceiving: more than often they are organized as stacks of office trays exhibiting little if anything of a rich hierarchical network of a good city. This shortcoming - inherent or not - has caused architects and urban planners to re-evaluate the role which our public places play in the life of the city.

Where in the past, man set up a relatively satisfactory order for the purpose of surviving in the great disorder of the non-civilized world, we now witness the greatest disorder in a scene where natural and man-made forces come into effect.
(Doxiadis-Douglass 1965, page 17)

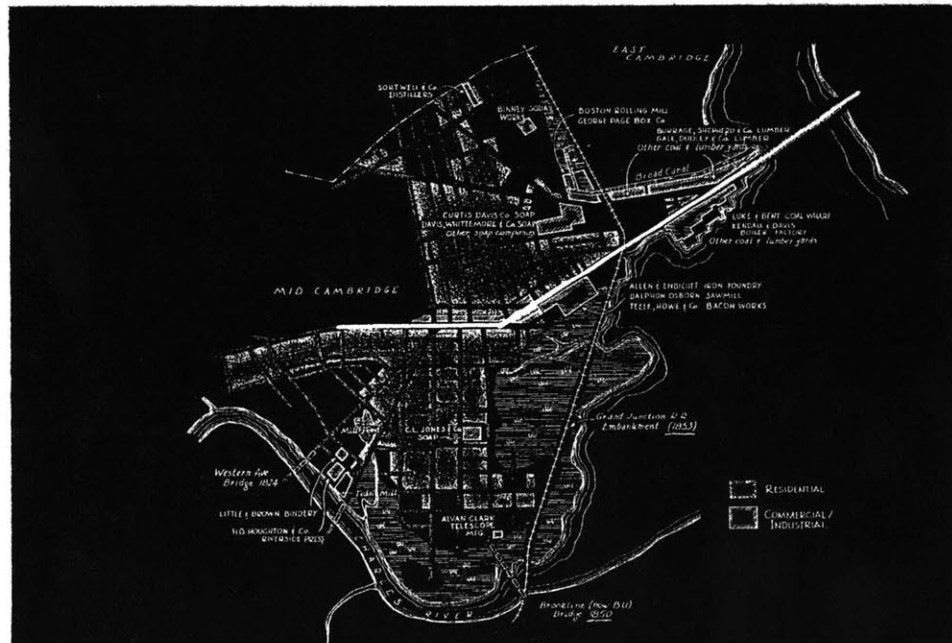
To understand the new position of the public territory in the city, Part 1. gives an analysis of a number of urban places in Boston, with a special attention to the individual user. Because of its history and sociological composition, Boston boasts a more varied set of urban places than most of the American cities. Consequentially, any analysis has to make clear which components of a given public place are typical to the problem of American urbanism, and which ones are particular to the actual place. The observations and conclusions will provide the framework for the ensuing proposal for a new urban node at Kendall Square, Cambridge.



HISTORICAL BACKGROUND OF EAST CAMBRIDGE

1806

The main element connecting the emerging satellite of Boston is Main Street, passing through Longfellow Bridge (1793). Main Street is lined along a short span by industrial and commercial facilities, off of which some residential blocks are situated.



1866

Most of the available land is claimed for industrial and residential use. In 1855, the railroad is built on marshland to serve the new industries, which congregate along the water supply (Broad Canal) in close proximity of Boston.

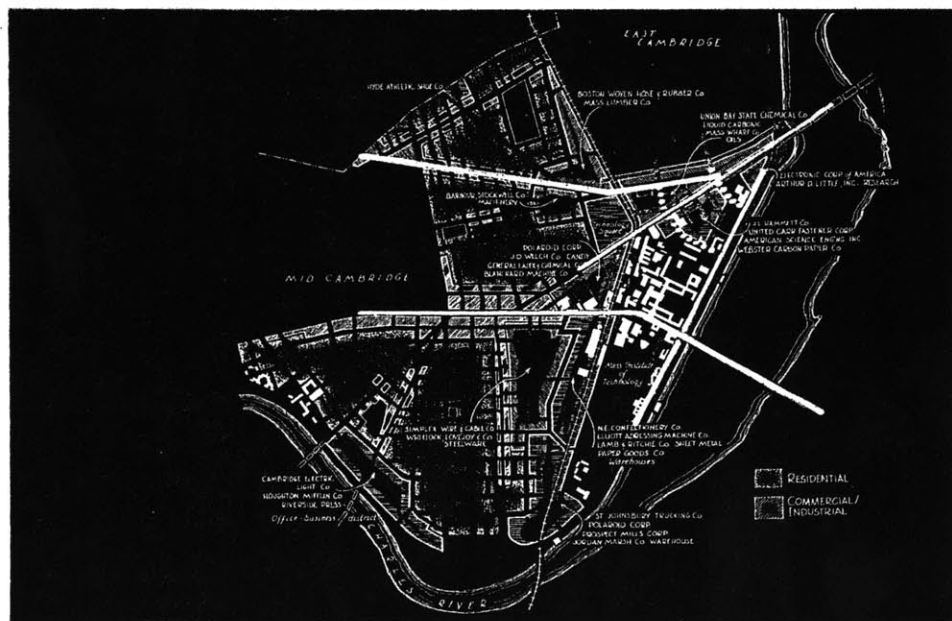
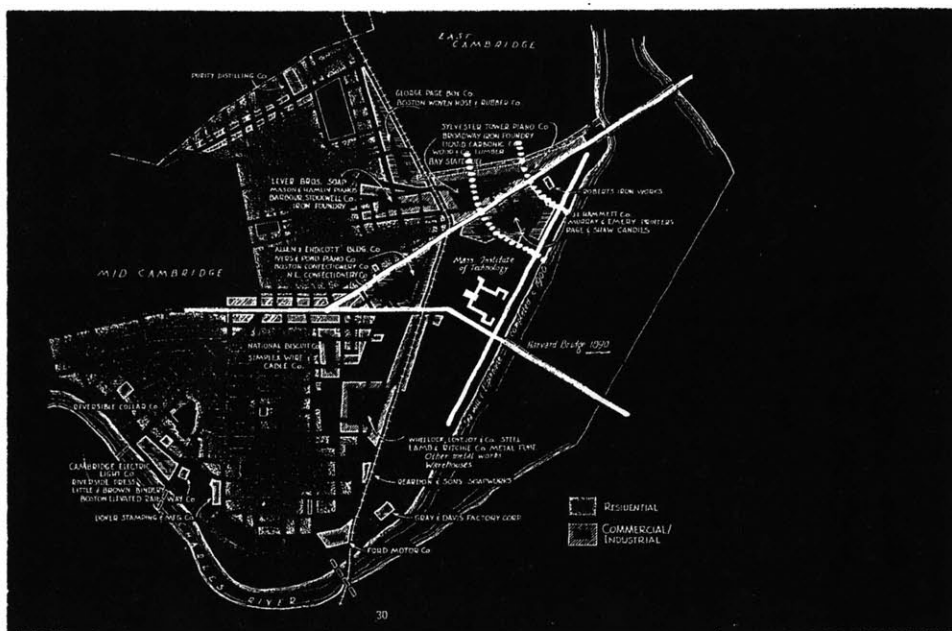
SITE AND PROJECT

Information Center and MIT Museum Kendall Square, Cambridge

The subway emerges from the dark tunnel which crosses Downtown Boston. The sun is reflected off from the large basin the Charles River. The light is so strong, one needs to close one's eyes, but the familiar silhouette of the Hancock Tower and the Prudential rising from the Backbay remains.

Cambridge, the educational satellite of Boston, grew out from the reclaimed marsh land, resting on many layers of industrial production. The historical factories, feeding on the rapidly developing technologies and on the assiduous locals, replaced the mud, but they were soon swept away by the growing residential communities and the universities: Harvard in the West, and MIT on the East side of the little peninsula. In the first decade of the century, the traveler, having left Downtown Boston on the streetcar, traversed the river on the Longfellow Bridge, and then passed through a long row of iron foundries, printers and candy factories, rudimentary production halls and large cylindrical silos lining Main Street - the then only cross-street between Boston and Cambridge.

Today only the Bridge is the same. The factories are replaced by twenty-story hotel and office complexes and only the insider knows that the shabby office buildings were converted from old factories to house MIT. On Kendall Square nothing announces the traditional importance of the famous institution - not a trace is seen of the glory of the Lobby Seven Dome on Massachusetts Avenue or the safe tranquillity of Killian Court. Yet most of the people approach MIT from this direction, find their ways through the





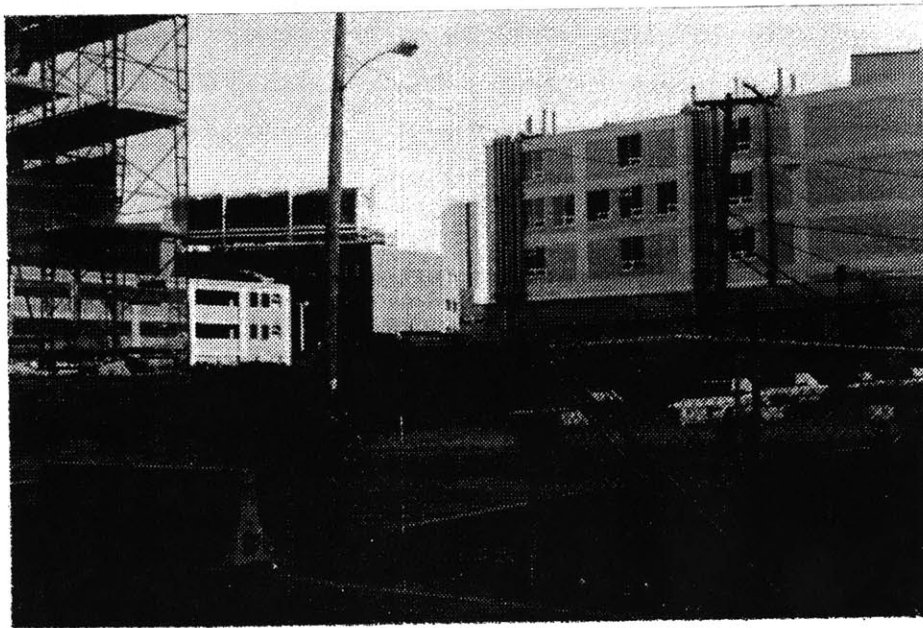
3
Site photo taken from the top of
Eastgate

concrete dividers, the often-locked atrium of the Medical Building towards the main part of the campus and the Riverfront. The trip is convoluted at best and becomes a daily recurring ten minute walk which fails to leave any memory in the mind.

The energy of the place begs to be shaped, to be amplified by built form. MIT has grown to a size during the 100 years of its existence which cannot be seen any longer as a network generated off of a singular point: the entrance of 77 Massachusetts Avenue. The Campus clearly needs new, more active ties to its surrounding - both at large and at small scale. The vicinity of Kendall Square offers itself as a new generating point, partly because it is connected to the rest of the city, partly because future expansion is possible on the empty lots between East Cambridge and Main Street.

The relationship MIT adopts towards the adjoining city can be expressed and emphasized by the physical expression of the interrelationship between the campus and the city fabric. A much needed forum for an open exchange might be reinforced by the programmatic and spatial organization of the area.

The intensity of the atmosphere is obvious from the moment one enters the buildings of MIT. The colorful posters, the occasional exhibits all talk about the hidden world of science, the wide array of cutting edge activity. Even from within, the flow of information is so intense that one grows somewhat immune to the flood of flyers wallpapering boards, walls, columns, entrances. In this chaotic deluge of data one would welcome a place which could serve as a meeting ground for the knowledge emanating from the various departments - an environment which could link the divers parts of the Institute to each other and to the outside world.



4
View of site from the entrance of the Medical Building. Eastgate dormitory is in the background

5
View of site looking towards Boston from Main Street. The Hancock tower is visible through the only visual connection between the site and the other side of the Charles River

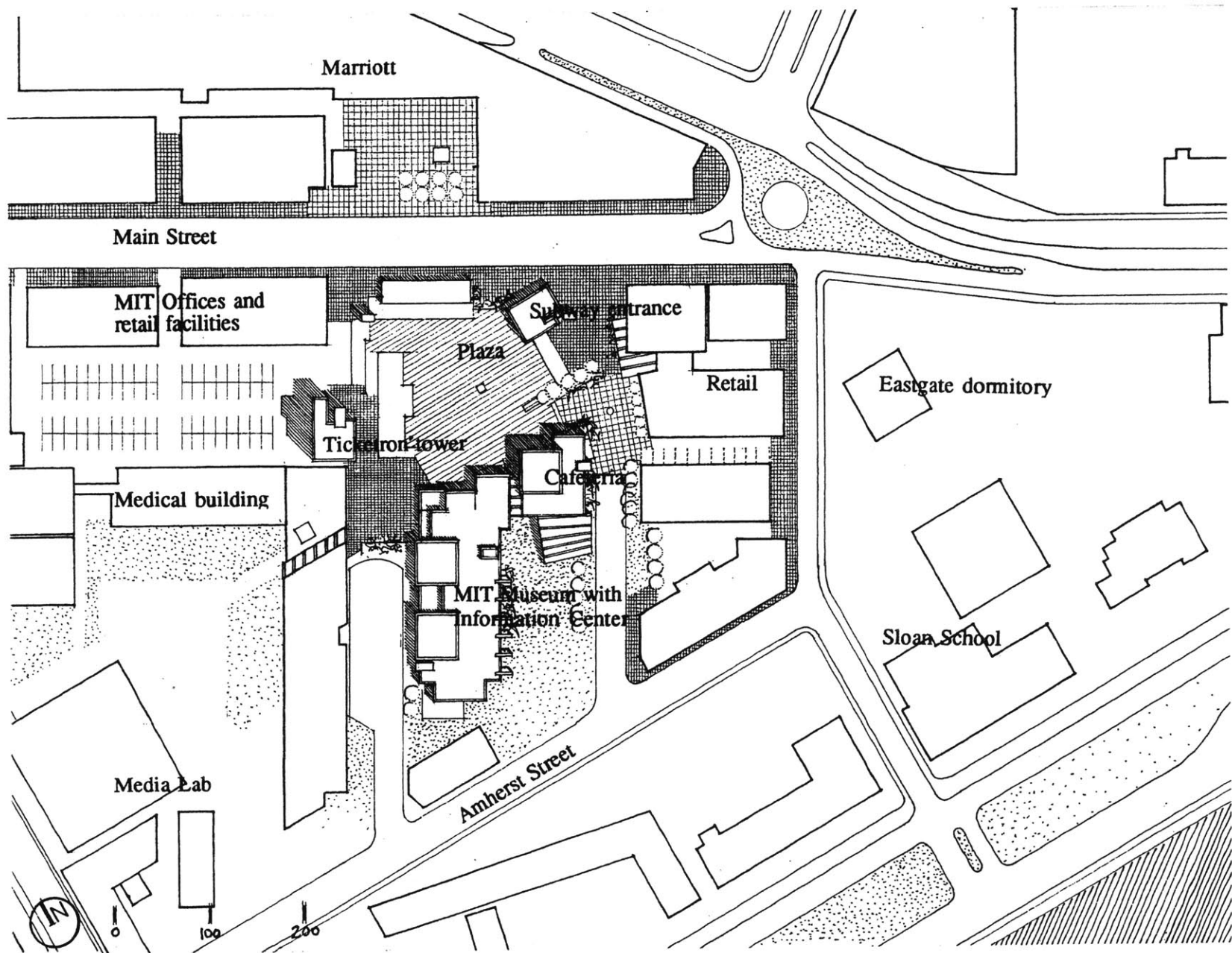
The two sides of such a collective space - one which traces MIT diverse past and one which reflects its present - are incorporated into one building: an information center joining the MIT Museum. The new information center would offer information on the scale of the departments, various communities, and activity groups of the institute, and would include information about the activities of the city and the larger community of Cambridge and Boston as well. This immediate access to information on various orders would allow students to enrich their educational experience while at MIT, and would open venues for the city to interact with MIT in a more leisurely form.

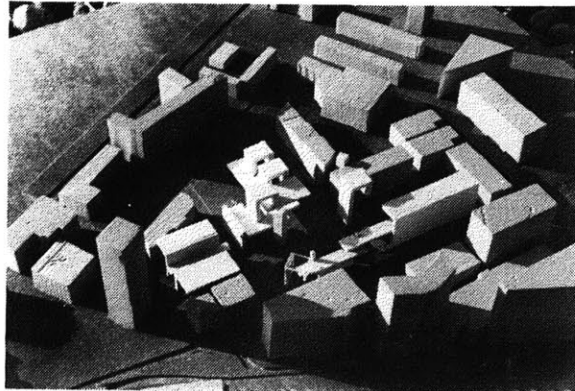
The component defining the character of the new entrance to MIT is a manifestation of the past, present and future of the Institute. The word which will be used throughout this proposal is *museum*, with the tacit understanding that it is a changing, living exhibit keeping abreast of the constantly renewing flood of information.

In addition to the constantly changing exhibits reflecting the present, the new museum will house the permanent exhibits currently in the MIT Museum at 265 Massachusetts Avenue, and will offer a possibility for the exhibition of the numerous collections representing all of the departments - collections which are today in storage for lack of sufficient and appropriate exhibit space. The latest acquisition of the MIT Museum, the world's largest holography collection would comprise a large portion of the permanent exhibit of the new museum. (Appendix 1.)

6
MIT - Entrance at 77 Massachusetts
Avenue







7
Site plan showing programmatic
elements

8
Diagrammatic site model showing
relationship of new built form in context

The programmatic elements of the new plaza the following, showing an approximate square footage:

Plaza		29,800 sf
outdoor performance area	25,000 sf	
information displays	4,800 sf	
Information Center		20,600 sf
Cafeteria		11,000 sf
MIT Museum		49,700 sf
general exhibit area	22,000 sf	
special exhibits	6,000 sf	
lobby	4,800 sf	
museum shop	2,300 sf	
offices	6,200 sf	
auxiliary	3,000 sf	
video library	2,200 sf	
roof terraces	3,200 sf	
MIT Offices, Main Street		70,000 sf
offices	51,000 sf	
movie/lecture theater	9,000 sf	
study rooms	6,000 sf	
computer cluster	4,000 sf	
Retail amenities		19,000 sf
24 hour shop	4,000 sf	
MIT Bookstore	12,000 sf	
second hand bookstore	3,000 sf	
Ticketron for Boston shows	12,500 sf	13,000 sf
media screen	500 sf	
Subway entrance lobby	3,000 sf	15,500 sf
shops	12,500 sf	
Total indoor area:		187,000 sf

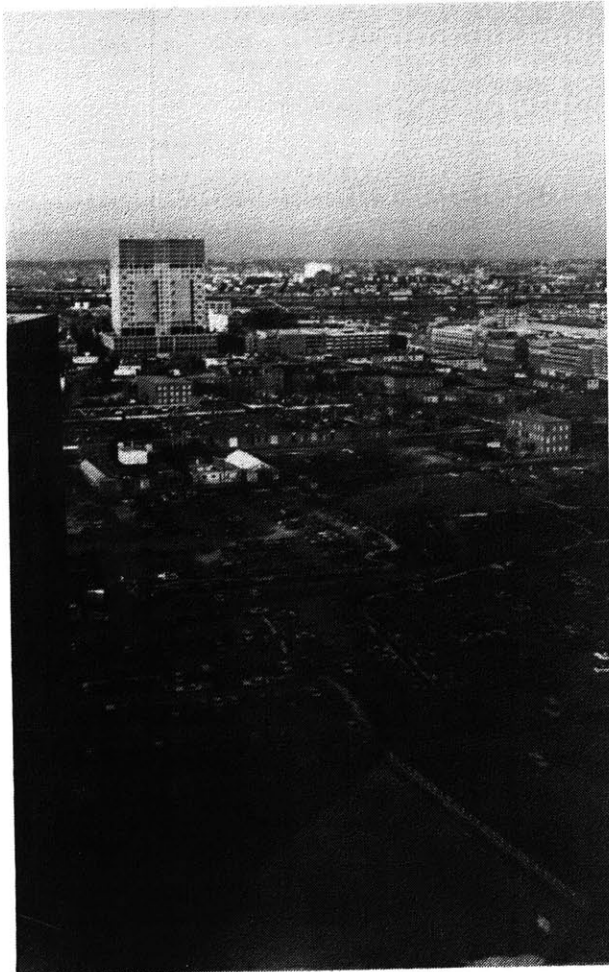


9, 10
Longfellow Bridge connecting the site
with downtown Boston and Beacon Hill

Below:
Point Park with the steam sculpture by
Otto Piene and Joan Brigham

11

View of East Cambridge from site. Most of the area between Main Street and the residential development of East Cambridge is covered by parking lots



Working assumptions

1. Parking

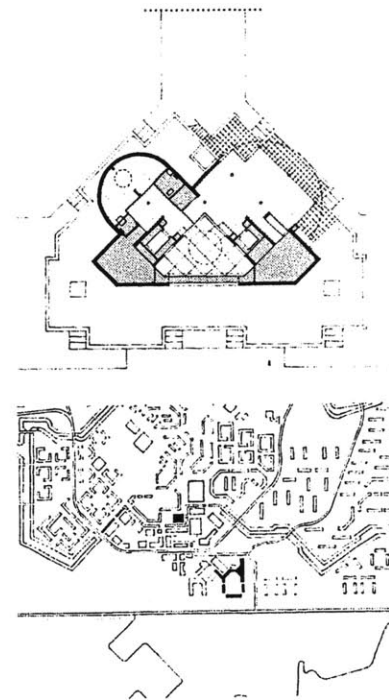
The site as it exists serves as a parking lot for 155 cars. MIT has developed a plan according to which all on-campus parking facilities would be located along Vassar Street. Only small, specialized parking lots would remain within the larger body of the Campus. In this spirit, two small parking lots are provided in the close vicinity of the site, one serving the Medical building, and another one for the MIT Museum, accessed from Main Street.

2. Access

The main access point to the campus from the East is the lobby of the Medical building. The doors of this lobby are closed for the night, only those who know the combination to the lock can save themselves the detour one is forced to take during these hours. The reason for this arrangement is to provide security for the Medical building. In order to solve this problem, the proposal assumes that the security point of the building is moved to the sides of the lobby, thus leaving the lower two floors of the lobby for general public use. Continuity between the two parts of the building can still be assured above the third floor of the lobby. At this level, a new main gallery is suggested to provide the inhabitants of the building to overlook the activities of the new plaza.

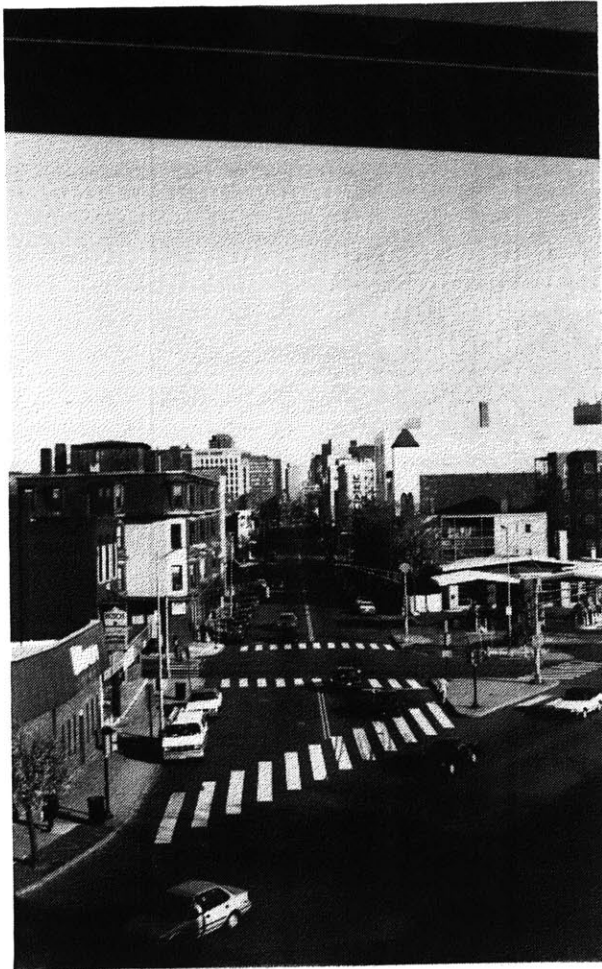


12 Hertzberger: De Overloep, Home for the elderly



13

View from the intersection of
Massachusetts Avenue and Main street
towards Boston



DESIGN INTENTIONS

The design of the plaza seeks an appropriate response to the existing urban forces affecting the site. The two elements which determine the spatial organization of the plaza are the subway station, linked to the city fabric of East Cambridge, and the major walkway of MIT, the "Infinite Corridor", which runs parallel to the Charles River and organizes the whole campus. Although the Infinite Corridor comes to a termination point at the proposed plaza, the pedestrian network continues toward the Eastgate dormitory and Sloan School, to reunite with the bank of the River. The proposed network sets up a possibility for a continuation towards north.

Considering the importance of the proposed urban node, it seemed appropriate to remove a number of buildings, including the MIT Press building. The more bulky functions housed in these buildings are accommodated alongside Main Street in a new development which defines the street as a continuous edge, while the smaller ones are relocated to the new submerged shopping area between the plaza and the subway level. New parking facilities are provided between the development on Main Street and the existing Medical Building, accessible from the plaza and the new MIT Museum.

Most of the public spaces of the MIT campus are organized by the presence of the Charles River. Its promenade enlivens Killian Court, defines the character of Hayden Library, Barker and Senior House, orients many of the walkways and gives intermittent reference to the two main arteries: Amherst Street and the Infinite Corridor. The size of the public places ranges from the ceremonial to the intimate. The yearly commencement festivities give one layer of meaning to Killian Court,

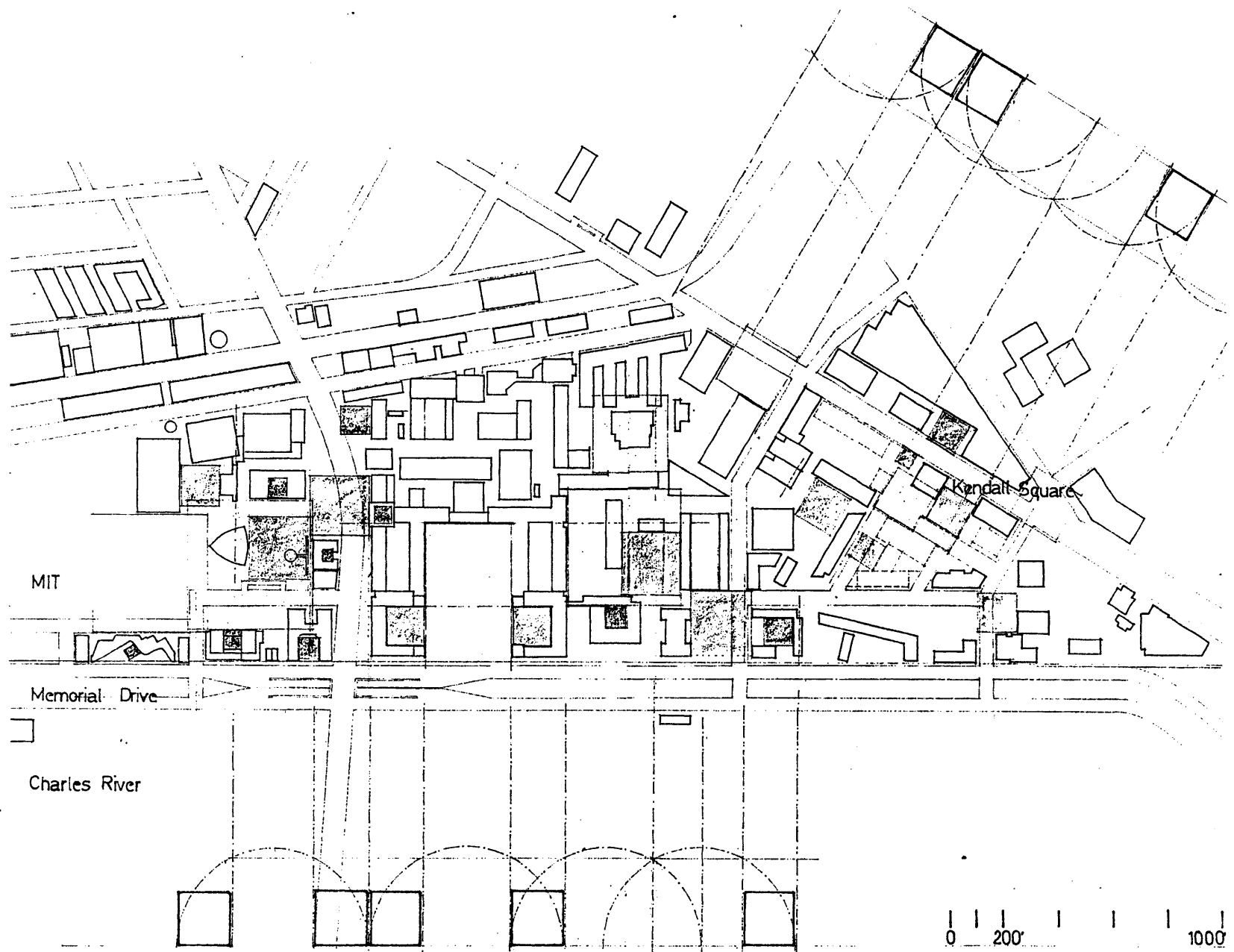


Diagram of open spaces

The original Bosworth plan conceived in 1906 laid out a rhythm for the zones of built and open spaces. His comprehensive plans set up a framework of built and open zones which informed further development. Although subsequent additions to the campus did not always reinforce this conception, a study of the existing open spaces in the west side of the campus still exhibits the Bosworth system and is still apparent in the way the campus is used.

The site at Kendall Square reflects little of this system, since at the time of the development of the Bosworth plan the area was used for industrial purposes. Also, the shift in the main direction establishes a natural separation between the main part of the campus and the new plaza.

The dimensional variety, however, which the geometrical zoning provides for is a model which can be incorporated in the design of the new plaza.

which is also used for informal rest between classes by individuals and small groups. The answer as to how many of these places can function for such a broad range of activities may be found in their physical definition. Simple as the design of Killian Court may seem, it embodies a very conscious definition of sizes by level changes, trees and shrubbery, established directions, and the uniformity of the container which orients rather than claims attention.

Many of the other successful spaces are conceived in the same spirit: they are layered to provide a multiplicity of definition. These layers are not additive or mutually exclusive (the way most houses are laid out with the proper function assigned to each containment), but are flexible and reciprocal.

This observation of layered inclusive definition has been a primary guidance for the design of the new plaza at Kendall Square. The plaza, acting at many social levels and in a variety of conditions, needs to operate both on the intimate and the collective level. It should provide a clearly identifiable image to which both individuals and institutions can relate. The image needs to be sufficiently specific to project character and to draw a range of people and activities.

Based on the conclusions drawn from the brief study of public places presented in Part 1., the second part proposes an urban plaza which wishes to gain its vitality from a very definite character determined by a specific institution: MIT and, more specifically, the MIT Museum. This character needs to be true to the fact that the development is indeed an institutional one, designed and built as a whole rather than pell-mell, reflecting changes over time and giving leeway for continual adjustments to arising needs.

Part 1.
PUBLIC PLACES IN THE CITY
- Observations and hypotheses



PUBLIC PLACES

Public places play an important role in the morphology of the city. They define the physical containment for social interaction on a large scale, they link parts of the city, outline transition and separation zones of different functional and social areas. Each public place is defined by a number of social, physical, cultural and historic components, many of which exceed the focus of this study. Our main concern is the relationship between the physical definition and the success of the public place.

It is very difficult to scale the success of any public place as temporal and societal variables confound the physical performance. (Anderson 1972, p. 17) These components set a complex matrix for the evaluation of any place with regards to its flexibility, identity, and ability to be transformed and adapted. Without disregarding the validity of any such rigorous framework, this study will select examples based on how the individual relates to the public place - how the place can change to accommodate a wide variety of users from a single individual to groups to unified "crowds."

The Development of Public Places

There are different types of public places, whose development follow a wide variety of patterns. The issue of control in the development of the public place is a considerable one. Institutionally developed public places are generally designed and built as an extension of an institute, with no significant input solicited from the community. City-controlled places, however, are mostly developed in stages.

The physical evolution of a place generally starts with a scant spatial definition: planting of trees, providing benches and trash receptacles. In this stage the public place is not necessarily associated with one type of use pattern. Its character is

The mission of the city is to further man's conscious participation in the cosmic and historic process.

Through its own complex and enduring structure, the city vastly augments the man's ability to interpret these processes and take an active, formative part in them, so that every stage of the drama it stages shall have, to the highest degree possible, the illumination of consciousness, the stamp of purpose, the color of love.

That magnification of all the dimensions in life, through emotional communication, rational communication, technological mastery, and above all, dramatic representation, has been the supreme office of the city in history. And it remains the chief reason for the city's continued existence.

(Lewis Mumford, The City in History. New York: Harcourt, Brace and World, Inc. 1961, page 575)

15

Government Center with the Northend
in the background



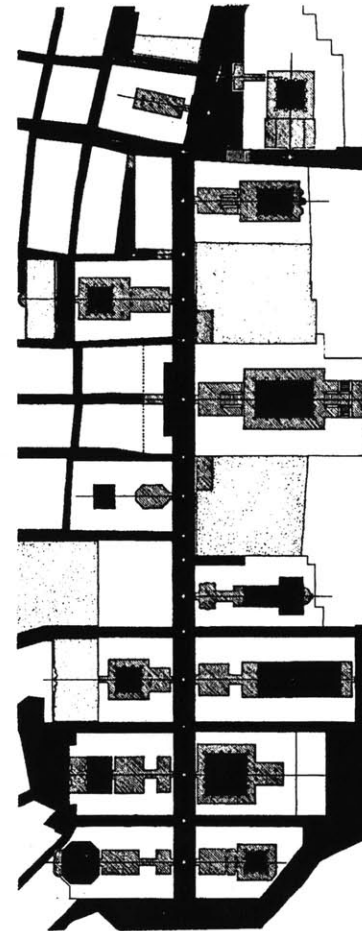
largely determined by its position in the city and its physical attributes. Many of Boston's urban places are in this phase of their development: the Government Center and Revere Park are illustrative examples. The second layer which determines the everyday use of the place is the way the community appropriates it for its communal activities. Various activities start to infiltrate the place, generating a specific kind of traffic, drawing more people. The plaza or square becomes an organic part of its environment by serving the adjoining functions: accommodating the tables of the nearby cafeteria and the newspaper carts. In this respect Government Center and Revere Park stake out the two extremes of the whole spectrum.

By its adjacency to the City Hall and its enormous size, the Government Center came to represent the entire community of Boston - too large a community to cooperate on an everyday level. As a result, the space is animated only on the rare occasions when a sufficiently large portion of the community comes together to celebrate (New Year's Eve) or to demonstrate. Otherwise only roller skaters and skateboard riders benefit from the space - activities whose speed justifies the use of such a large expanse.

Revere Park, on the other hand, is the place of everyday meetings. People go there to relax, to discuss the latest news in politics and the never-ending gossip. The space itself molds the community as much as the character of the space is molded by its users. The trees shade the benches. The water fountain reminds of old times. But, most importantly, the *culture* of the people allows them appropriate a space for their own purposes. Italian grandmothers sit on the old stone benches for hours, enjoying the hustle and bustle of Hanover Street muffled by the trees; doing nothing, the way a born American never would.



16
Genoa, Strada Nuova. Aerial view and
plan showing the rhythm one
experiences going down the street



The word “business” could very well model the culture of America. Apart from its connotations about the personal affluence of the individual, somebody's *business* is also a measure of the person's usefulness to society. Consequentially, one needs to have a *reason* to be somewhere; and being constantly busy is just as much a status symbol as having a suburban house. Sitting around aimlessly is unforgivable, since it clearly demonstrates one's uselessness! Doing it in a public place is loitering, tantamount to social crime.

This aspect of American culture largely determines the success of a public place. For a place to be used, it has to provide not only the physical, but the institutional framework as well. Within this framework, then, one is relatively free to carve out one's own space and define it.

*We are well aware of the effect of an old plaza, but how to produce it under modern conditions is not understood because we are no longer cognizant of the relation between the cause and effect in these matters.
(Sitte 1898, p.84)*

*In modern city planning the ration between the built-up and the open space is exactly reversed. Formerly the empty spaces (streets and plazas) were unified entity of shapes calculated for their impact; today building lots are laid out as regularly shaped forms and what is left over between them become streets or plazas.
(Sitte 1898, p.87)*

Continuity as Precedent

The notion of continuity as referring to public places is two-fold: first, it refers to the position the place occupies in the larger organization of the city. This attribute will be referred to as *connectivity* in this study. Second, continuity characterizes the physical envelope of the public place as is manifested in its architectural definition. This second meaning has been in the focus of the works by many historians and theoreticians dealing with urban public life, Camillo Sitte being most notable among them. As the main tenet of their inquiries, they analyze the physical properties (geometries, relative proportions, continuities in building materials, etc.) as the primary consideration for the success of public places. The examples are usually drawn from Europe, more than often from Italy.

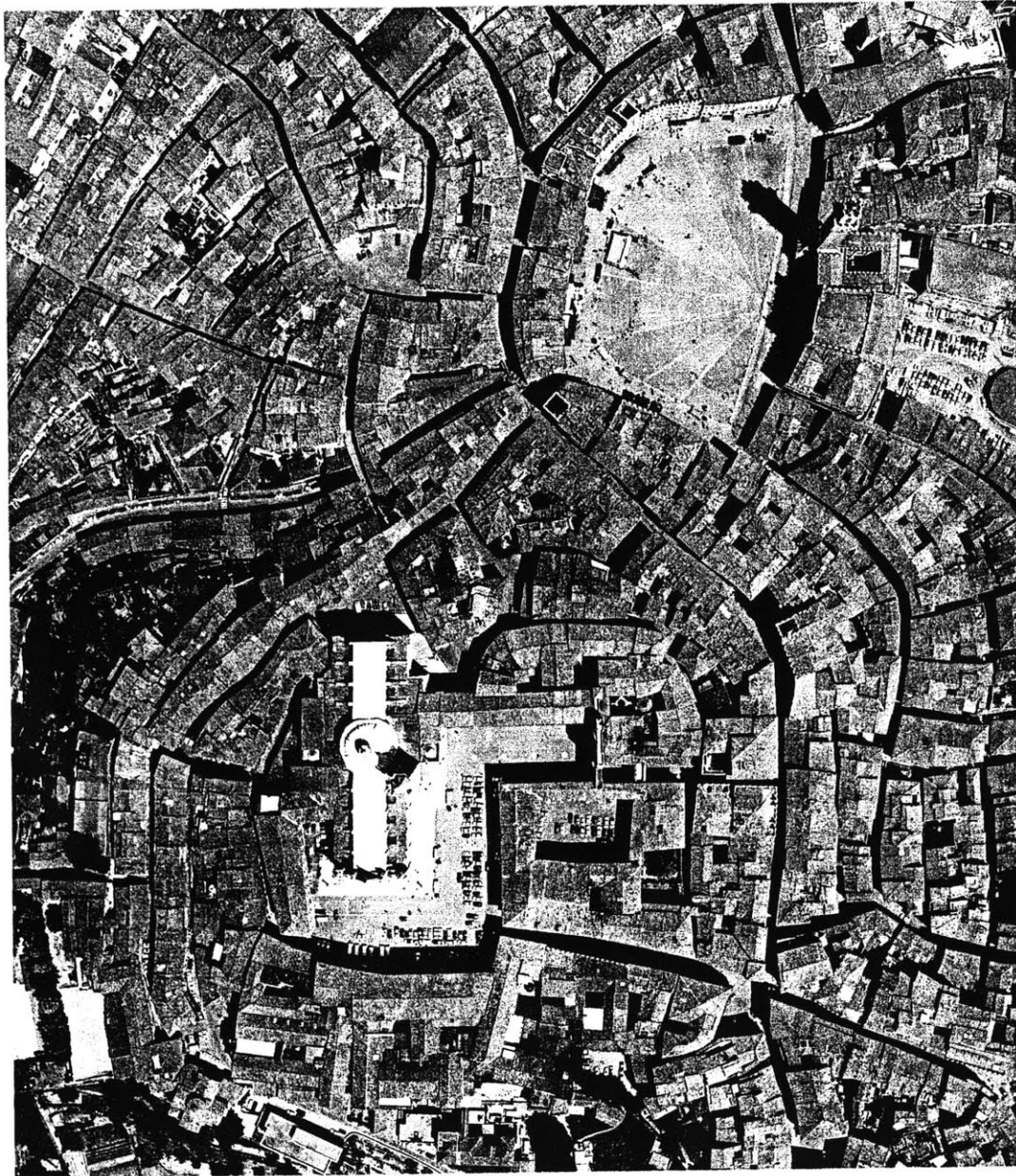
17
Lawrence Halprin: Auditorium Forecourt
Fountain, Portland, Oregon



Many American public places have been fashioned following in the well-worn footsteps of the European city. Dimensional relationships, material composition and formal codes have been adopted. This approach has been successful whenever the cultural and physical setup of the community is sufficiently similar to the European model. In the absence of such support for the vitality of the public realm, the new public plazas have become yet another one of the discreet elements, misplaced "objects" collecting litter and graffiti.

To approach the problem of the public realm in the landscape of the American city, one must employ a different approach which considers the fundamental differences in the morphology, history and role of the public place. Any such approach would have to accept the constraints within which it will operate: the proximity of high-rises with long shadows and their inhabitants sealed off from their city neighbors, and the meagerness of the neighboring city fabric, which would otherwise provide connection to further points in the city and to the city dwellers. This new approach will have to learn to operate within a field of objects, redefining, redirecting and amplifying the existing energy patterns of the site.

To approximate such a working method, first we should spell out briefly the characteristics of the traditional approach which has resulted in the "European type" plaza, the prototype for a number of generations of architects.



18
Aerial photo of the center of Siena,
Italy. The city fabric opens up to shape
the main communal ground of the city:
the Campo.



19
Parma, figure-ground map of the city

The European Type

The typical image of the European public plaza is the enclosed, well defined, sun-flooded *piazza* of Italy. The container of the plaza carries a stable height all around, creating an *urban room* which becomes part of the existing city fabric via the numerous connections at many scales - avenues, streets, vehicular and pedestrian alleyways. The image is a curious mixture of stability and dynamism. Expressive, even picturesque elements create foci, establish directions and dimensions, serve as reference for the extended fabric. Although these collective nodes are seen as singular units in the city, they gain their character and effervescence from the very city fabric of which they are a part and which they are meant to complement. They are made of the same matter that builds the city: only the dimensions and the focus change. Colonnades, towers, windowsills and cornices build the envelope of the public place, they become the physical container for the new public room accommodating the individuals as parts of society.

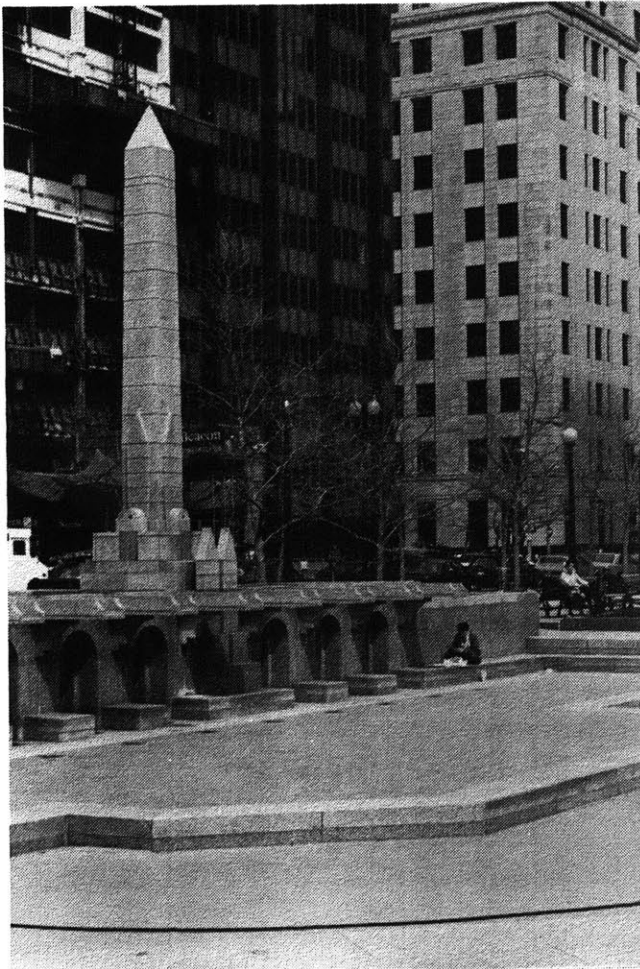
The continuity within the city fabric is obvious from the traditional figure-ground maps of European cities and projects the experiential coherence one gains from walking through the city. Whether the public places are organized in a formal, axial way (France) or by local modification of the existing network (Spain, Italy), it is the city fabric which is the primary definition of the public collector.



20
The grid system of the southern tip of Manhattan (1963). The orderly street grid was laid out by the Commissioner's Plan of 1811. The only large scale interruption in the relentless grid is the Central Park, opened for the public in 1859.

21

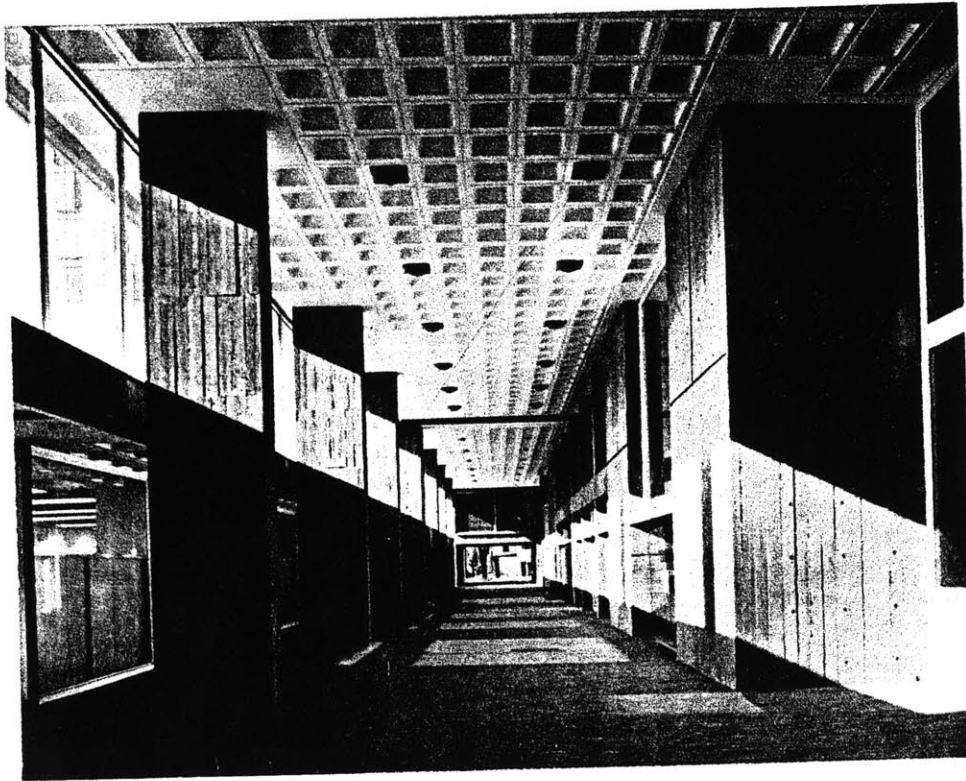
The fountain at Copley Square is monumental and attempts to provide yet another focus to the plaza without generating any specific activity.



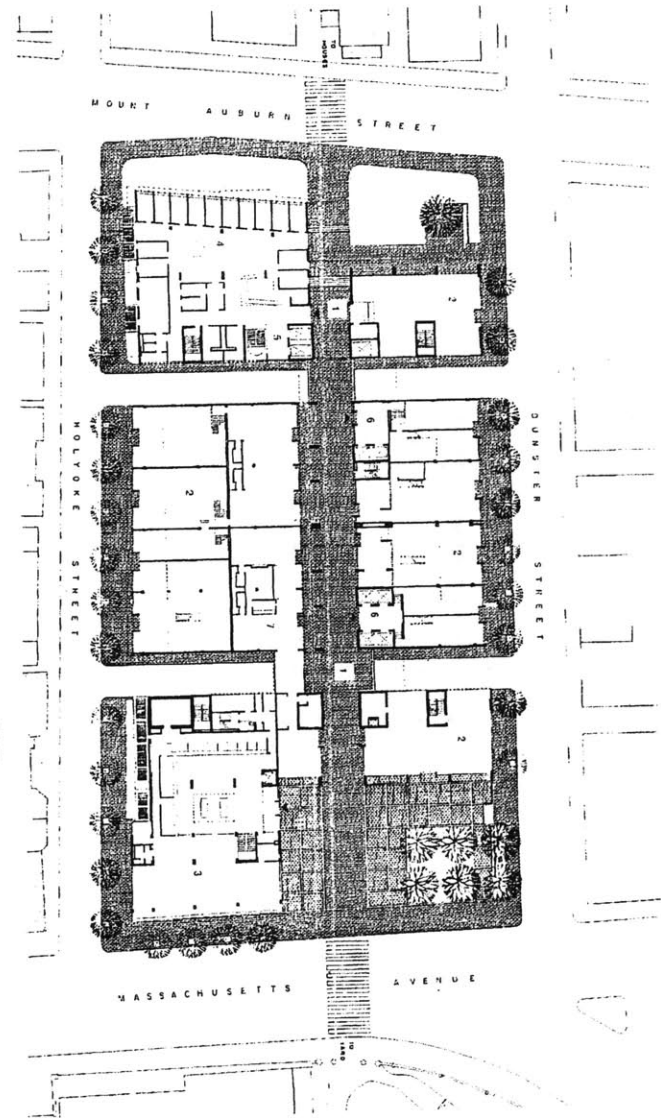
The American Paradigm

The way the urban city fabric transforms itself to accommodate the various layers of civic life is apparent from the traditional figure-ground representations of the city. The fundamental shortcomings of these two-dimensional diagrams become obvious, however, when they are applied to the American city. Although the city fabric might seem rather homogenous in its planar representation, tracing regular patterns of grid-iron networks, the image does not conform to the experiential quality of the urban landscape. The third dimension, the most characteristic one of the 20th century, is missing. The skyscraper of America, the great symbol, refuses to submit to two dimensions, it creates its own existence, its own aura. As a result, the fabric of the city transforms. The containments which used to embrace communal life shift to envelop the *object*, to celebrate a symbol which detaches itself and stands aloof, dominating the skyline. With the arrival of the new object interest shifts, density shifts, a pattern which has been homogenous is shattered. The broken landscape with the giant objects lifts human spirit to ever newer heights but encapsulates life in ever smaller confinements.

Symultaneously, the street is reduced to serve as a territory connecting these internalized "cities" of limited personal communication. The fear of exposure to the elements and to crime becomes much more strongly associated with it than before. The safety of the office tower is connected via the subway or the personal armor of the car with the safety of the house in the suburbs or in the condominium complex. The communal life of the street is short-circuited. The public place is drained of its past vigor and becomes a nine-to-five extension of the office.



22
 The Holyoke Center (Jose Luis Sert ,
 1958-65) is part of a larger pedestrian
 network connecting Harvard University
 to the dormitories along the river front.
 The sun-flooded, yet covered arcade is
 lined with shops and offices. In the
 harsh New England weather the
 passage is highly appreciated.

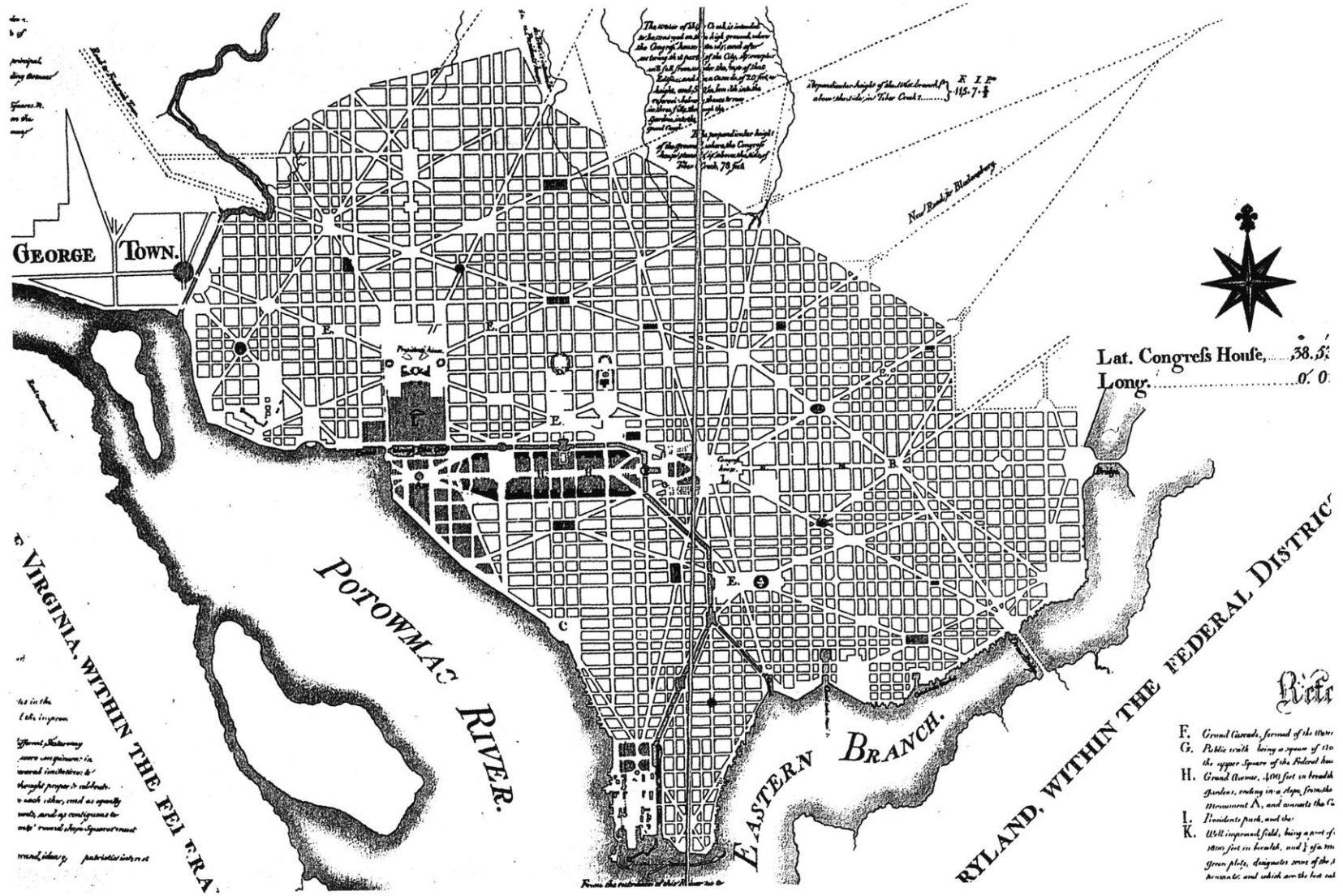


It takes special moments to temporarily revive the central role of the urban public place which it used to play in our lives. Beautiful sunshine, public *happenings*, and other moments transform the remnants of the public place, attracting people who join the tourists and the poor.

There are, however, a number of public places which continue to “work” within the city. In Boston, Faneuil Hall is a success, and Harvard Square maintains its image as an unfailing measure of the pulse of the city, despite (or because of) of its non-singular spatial definition. The examples provide us with valuable clues towards understanding the fundamental transformation (or formation) of the American urban place.

Faneuil Hall and Harvard Square “celebrate” the individual by relating to a variety of personal needs (shopping, people watching, spontaneous entertainment). This primary association is then enriched by other means, above all by being connected to other functions within the city which are manifest in the physical form of the place. Vistas, continuities of pedestrian passages offer clues about the position which the place assumes in the network of the city. This way, although the singular public elements are positioned in tension rather than growing out from each other, their “energy supplies” are connected and feed into each other.

Map of Washington, D.C., with the
central institutional spine of the city: the
Mall.

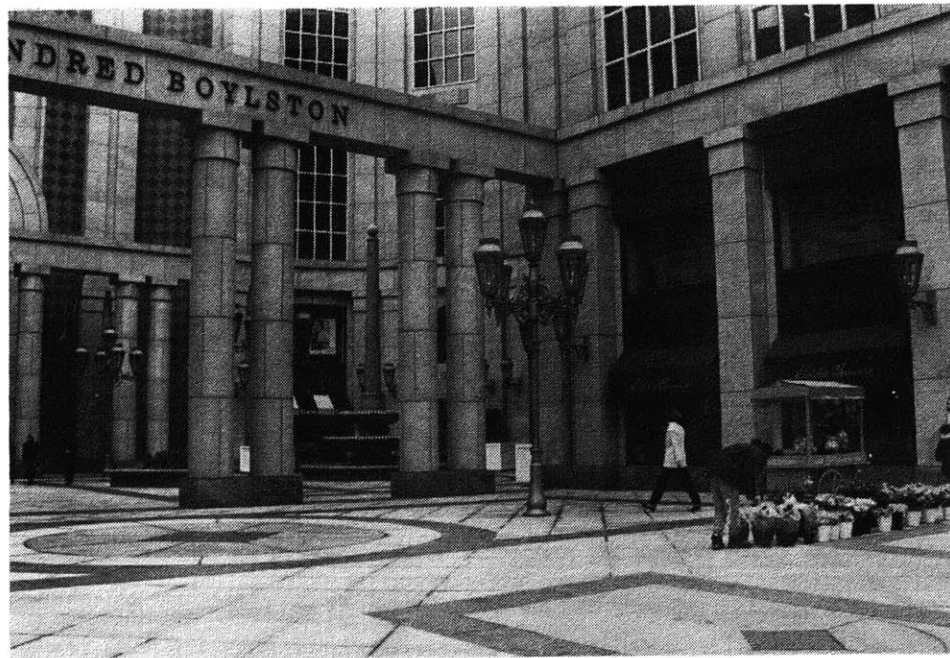
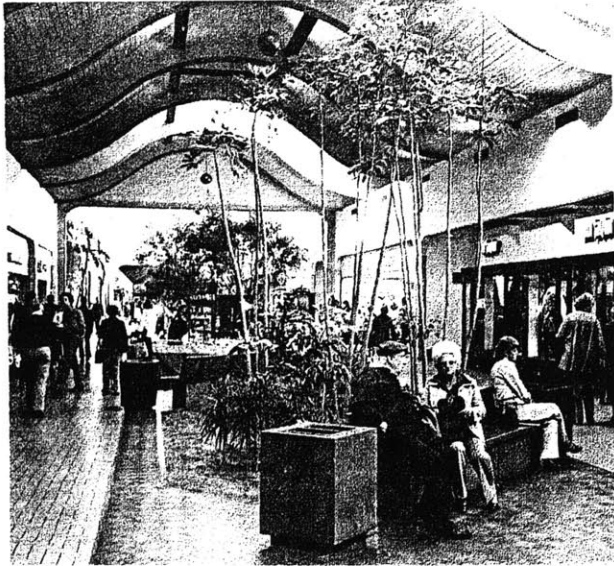


PUBLIC PLACES AS INSTITUTIONS

Camillo Sitte outlined the difference between two radically different approaches to dealing with the formation of cities: city-planning and city-design. (Sitte, 1898) City-design considers the three-dimensional manifestation of cities as primary, to which the actual street layout is merely subservient. City-planning, at the other end, is a means to solve the necessary technical problems of mass-cohabitation of people - traffic, hygienic aspects, et cetera. "Today nobody is concerned with city planning as an art - only as a technical problem. When, as a result, the artistic effect in no way lives up to our expectations, we are left helpless; nevertheless, in dealing with the next project it is again treated wholly from the technical point of view, as if it were the layout of a railroad in which artistic questions are not involved." (Sitte 1898, p. 85)

Although this passage was written close to a century ago, the observation holds fast even today. Often the plans prepared for the development of the city deal with basic layout of the large-scale infrastructure, but require little about the image a certain part of the town or a certain public node should carry.

We accept a priori that the success of a public place stems from a shared understanding of its usefulness for the community, which in turn is reflected in a certain homogeneity of its physical framework. It seems curious that this kind of large-scale agreement about the development of the physical appearance of a public place is relatively uncommonly born in the United States where the initial decision-making process would provide the necessary legal framework for this. It could be because early decisions regularly exclude any provision for the collective, leaving the development of each parcel entirely to its perspective owner. Since the rights of the



24, 25

Shopping mall

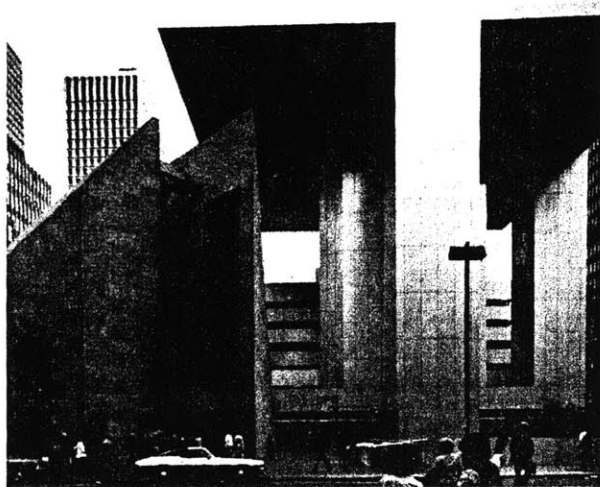
The public life of the city has relocated from the street to more institutionalized places. The most popular form of public "recreation" is the shopping mall, internalized and isolated from its environment. The shops lining the internal streets of the mall attract a wide variety of people. Concerts, shows and children's activities provide a shared experience for the visitors. However, the liveliness is limited to the business hours, and drains the streets of the city of their vigor.

Below:

Boylston Street - court built in front of a new institutional development. Occasional users, such as this flower vendor, prefer to use the side walk rather than the large, formal court, since that one has little exposure to the street and almost no activity going on in it.

26

The base of the Citicorp Building (Hugh Stubbins and Associates) in New York is raised to approximately fifty feet to create a space with truly public dimensions. The result, however, is rather depressing: the enlarged sidewalk is barren, furnished only with some greenery, but no signs for the possibility of human occupation. The situation is similar to the AT&T Building (Philip Johnson), where the multi-story arcade had to be reconsidered, enclosed and infused with specific uses to make it more appealing to the public.

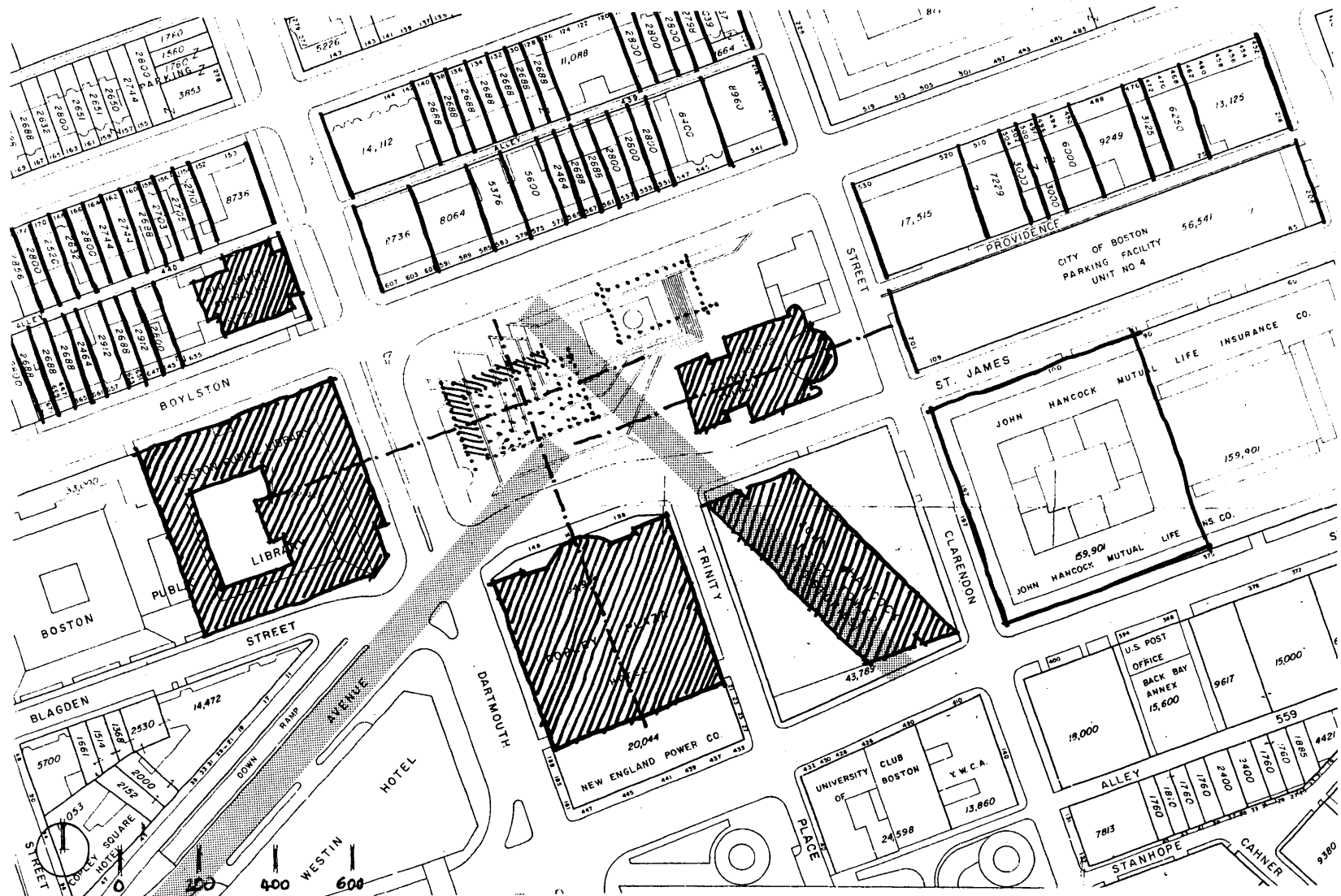


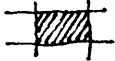
community rarely infringe on the rights of the individual, the street becomes the only ground where the community may find expression.

Today, more and more public places are defined as part of an institution, which - attempting to gain tax or other benefits - develops part of its property for *the public*, forming a space which becomes part of the city network (although is usually clearly separated from it).

The large public halls and courtyards of corporate headquarters and the long concourses of shopping malls establish a new layer of the public realm, which is more controlled physically and socially than the other layers. These places create an ambiguous border between public and private, controlled and maintained by a single institution, yet open to the general public. The image of the generous benefactor infuses the place in which the users are clearly guests rather than the active participants in the making of the place. They are forced into a passive position, which separates them from their environment to a great degree. The IBM plaza or the Greenhouse of Battery Park City in New York are good examples of institutional places, which are pleasant and elegant, but enforce a very well defined "behavioral code" on the visitors.

Many of the popular public places of New York have been shaped as a corollary to the development of some institutional complex, sometimes to command public attention (IBM Plaza), other times to gain profit in form of tax benefits or building code variances (Trump Plaza). The institution which commissions the design and executes it has generally full control of the physical layout of the new public place. It would be easy to deem the practice of shaping these plazas to their own image capitalist, but it



Type: 
city block surrounded
by streets on all sides

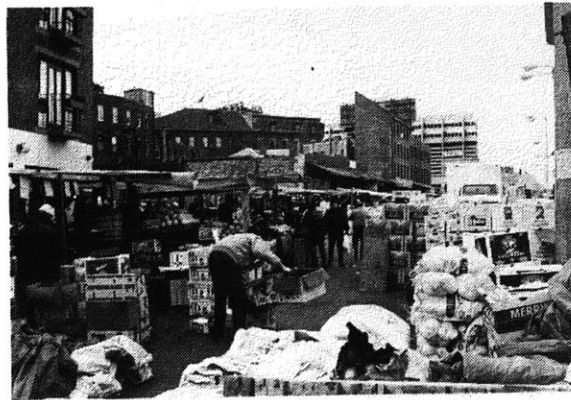
Connectivity:
between two main
commercial streets
in the Backbay

Character / Control:
Institutional

Functional Adjacencies:
I.: Trinity Church
II.: Boston Public
Library, Hancock
Tower, Marriott

Dimensions:
I.: 1170' x 540'
II.: 200' x 300' lawn
200' x 120' fountain

Heights:
Hancock Tower: 600'
Backbay type: 70'
large deviation and
fracturing



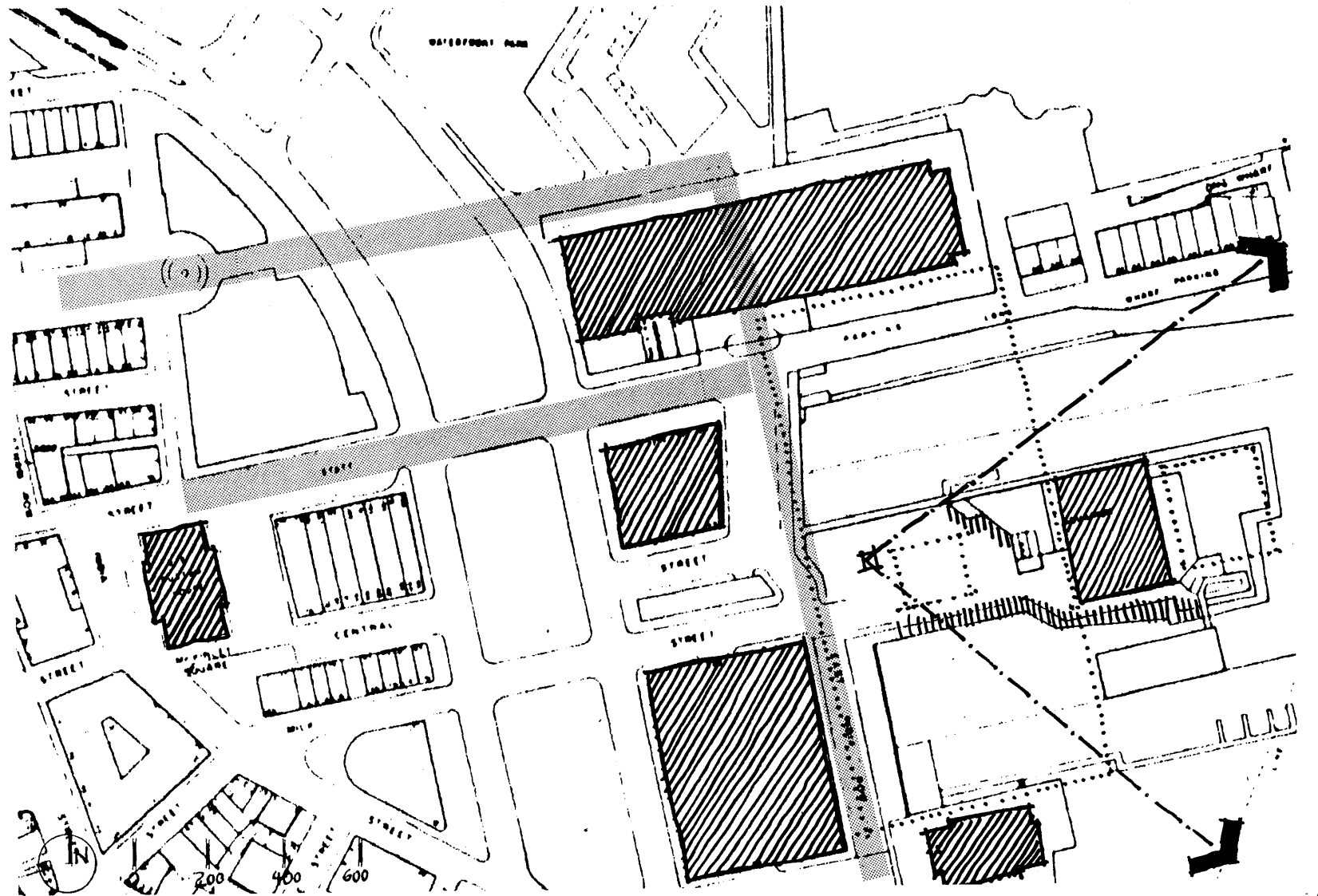
27
Opposite:
Diagram of Copley Square


28
Haymarket on a Saturday morning

seems apparent that the more closely the architectural framework of the new space is tied to the institution, the more successful it becomes. The more singularly the character and the function of a place is determined, the easier people can relate to it. The best illustration from Boston for this phenomenon is Haymarket - a place which becomes densely populated every Saturday morning, offering an experience which is awaited by many. The same corner of the Blackstone block is radically different during other times, only unsightly boxes remind us of the Saturday market which brings many people together.

Quincy Market in Boston is another good example. Shopping and eating are the primary functions which shape the character of the place. Then the place fills not only with people who come shopping and eating but street musicians and jugglers, preachers and poll-takers, who benefit from the mass of people. These additional activities further color the character of the plaza, reinforcing the original activities by drawing even more people.

The question arises as to whether a second institution could join in and further refine the use patterns of an already active public place. The examples indicate that the answer is no. Copley Square is surrounded by institutions which could claim the existing space for their own benefit: the Trinity Church, the Boston Public Library or the Hancock Tower could all assume responsibility for the plaza. There are three major obstacles in front of this kind of change. First, the square is encircled by a constant flow of traffic, creating a forbidding barrier between the surrounding elements and the main body of the plaza itself. Second, community opposition very resolutely rejects any such change for fear of losing rights over the square. In reality, just the opposite seems plausible - the more the place reflects the nature of an institute, the



Type: 
City block size open area

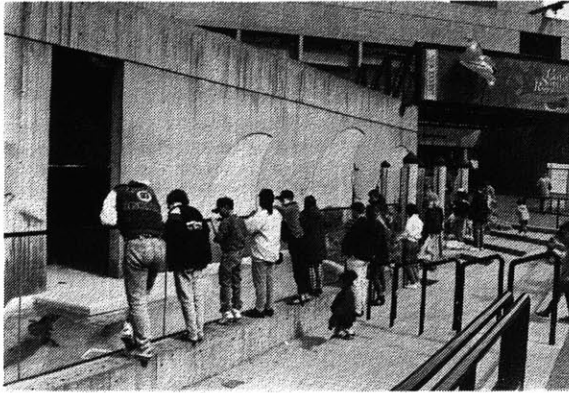
Along main pedestrian walkway on the Harbor, separated from the Downtown retail zone

Character / Control:
Open to the harbor,
Institutional

Functional Adjacencies:
I.: NE Aquarium
II.: Marriott, Rowes Wharf, Columbus Park

Dimension:
I.: 1300' x 600'
II.: 600' x 320' plaza fountain
50' x 50'

Heights:
I.M. Pei houses: 250'
General height:: 50'



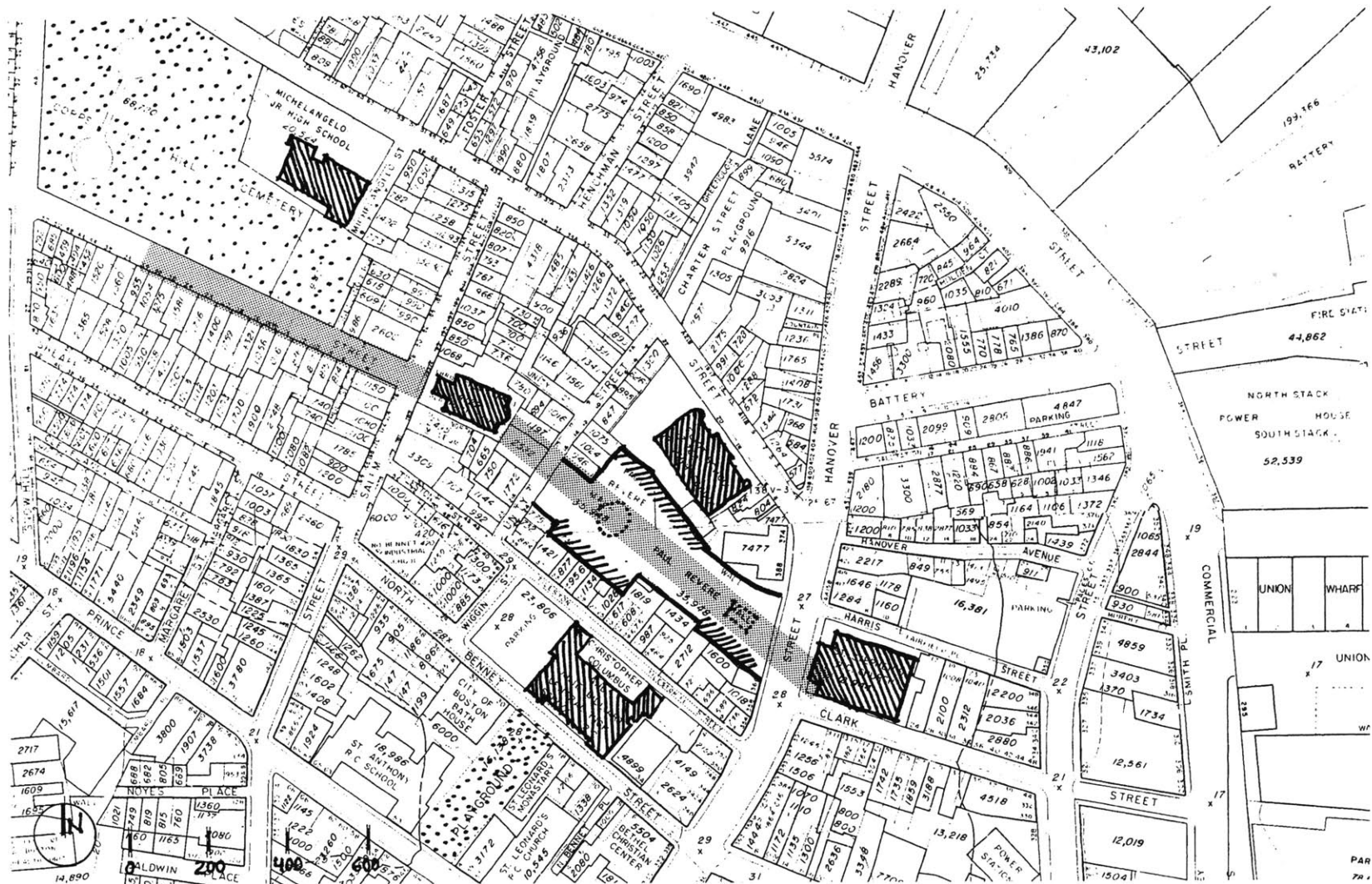
more successful it might become. Lastly, the internal dynamics between the various institutions who all would claim right to the place also inhibits the change. As a result, Copley Place remains underdefined, with a remote corporate character which suggests only elegance but no specific use or personality.


Size and Function

Examples such as the Aquarium plaza on the Waterfront, the Christian Science Center or the Museum of Fine Arts prove, there is a direct correlation between the size and nature of the institution and the size of the public space it is likely to claim. More public institutions (like the Aquarium) can extend their influence further beyond their territories than less public ones. Hancock Tower, despite its enormous size, is very much confined to its own building, since the activities taking place within are not sufficiently extrovert to generate activities on the scale of the community.

29
Opposite:
Diagram of Aquarium Plaza

30
Aquarium Plaza



Type: 
Mid block connection
with protected use-
zones on two sides

Connectivity:
off of main commercial
spine of Northend

Character / Control:
Green, neighborhood
scale

Functional Adjacencies:
I.: two churches
II.: number of schools

Dimensions:
I.: 700' x 300' (widest)
700' x 160' (narrow)
II.: 300' x 300' fountain
180' x 180' equestrian statue

Heights:
Churches: 80' - 120'
Houses: 60'
Strong, uniform
container on sides, high
elements marking ends

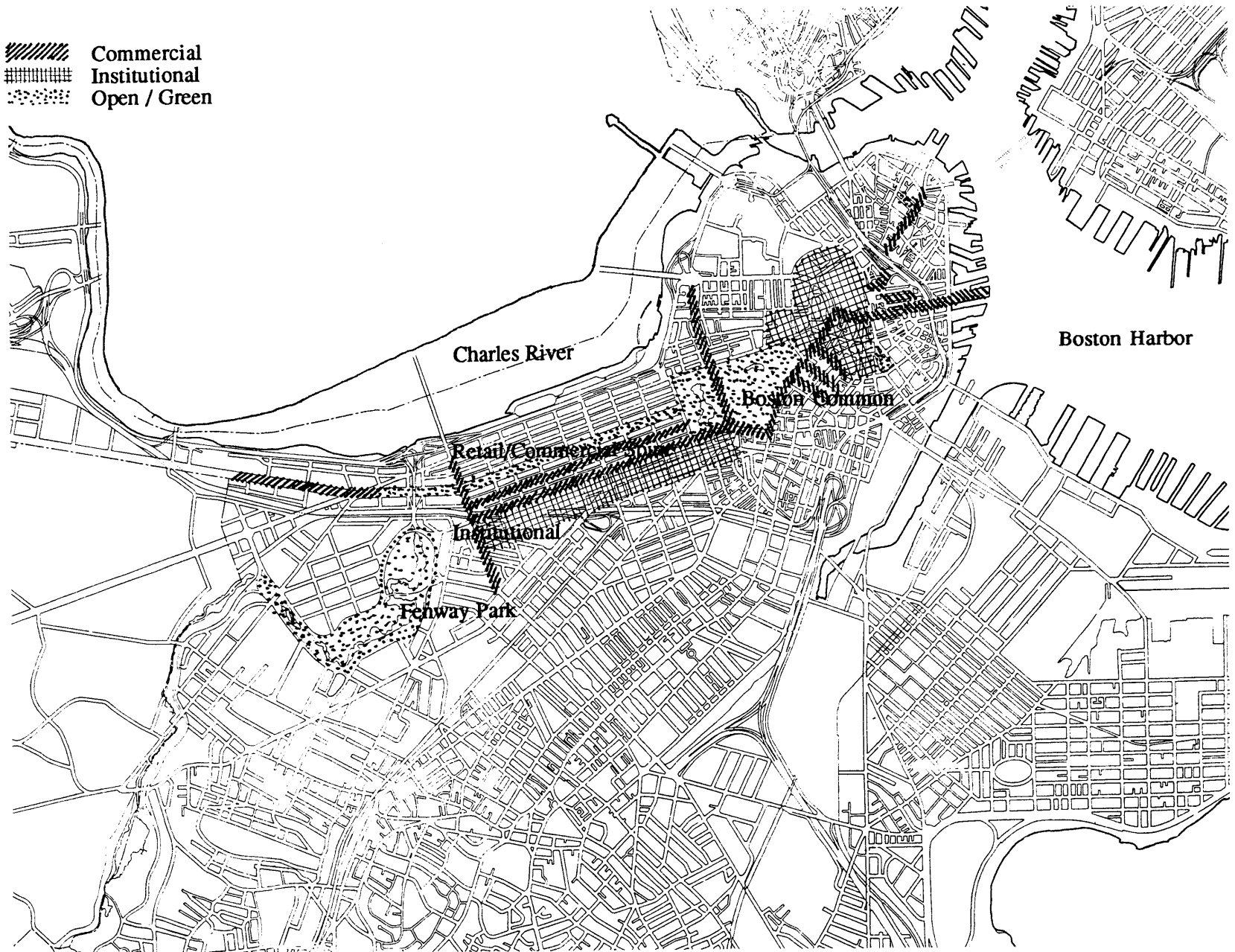
PUBLIC PLACES AS PHYSICAL ENTITIES

The investigation on the institutionalization of American public places indicates that their success is largely dependent on their image in terms of projected use. Now we embark on a study of the actual physical characteristics of these places in order to understand their relationship to use.

Two components of public places will be examined: their relationship to the surrounding city fabric, and the architectural elements that determine how the space reflects, communicates and enhances its use.

The diagrams in *The Image of the City* by Kevin Lynch and in *Collage City* by Rowe suggest that cities are about boundaries, the conflicts of separate units coming together, and the forming of fabrics continuous within their own dimensions. In this system the meaning of inside and outside fades: one is moving from one containment to another, only the degree of privacy and publicness changes. Space - as understood by Gaston Bachelard when he describes the notion of 'vastness' - is not part of our city. (Bachelard, 1964) Three-dimensional vastness, evoking our perception of nature, is reduced to linear and focal experiences as we move through streets and plazas. This fundamental discrepancy seems to be crucial while analyzing urban situations - conflicts of various sources, continuities and relationships. The physical definition of the containment - size, orientation, permeability, et cetera, - opens a dialogue with the surrounding elements to provide a context within which civic activities take place. The envelope defining the city's public domain, therefore, is crucial in making the city itself continuous.

Commercial
Institutional
Open / Green

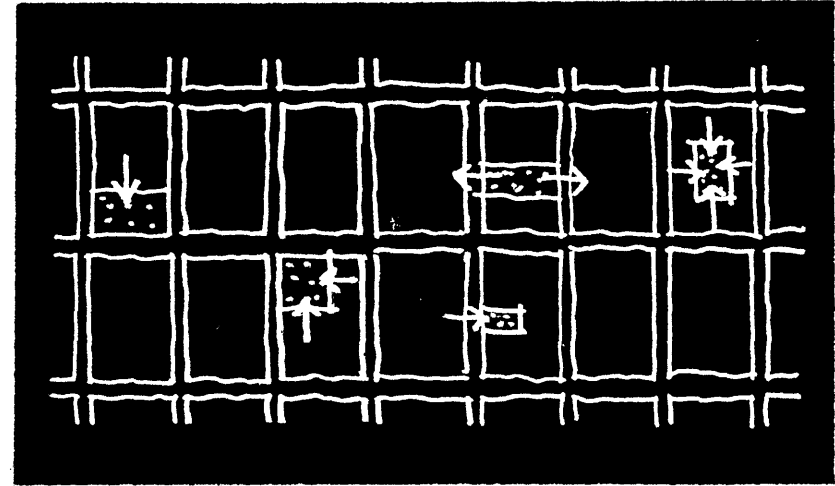
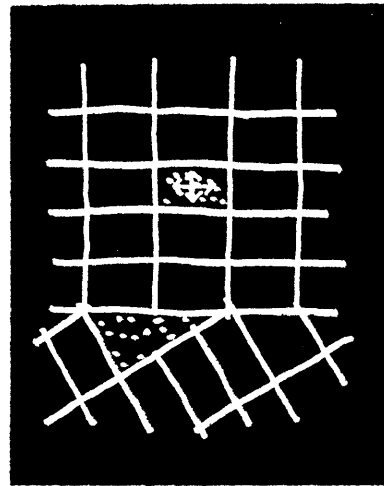
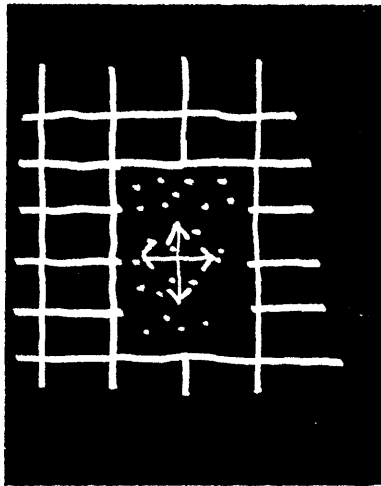


In the past few decades the envelope circumscribing the public domain of the city has become less and less defined, leaving our cities discontinuous on many levels. The large containments which used to define the commonly shared public spaces where a constant flow of information took place, has relocated: now they are the hallmark of exclusive, oversized buildings, closed to the general public. They define private territory, commonly equipped with security guards, lockable (and locked) doors, and, at the best, they feature a "public" restaurant on the top floor. This trend has had the result of fracturing the old definition of the public domain. The subsequent disposition of buildings with respect to streets and plazas presents a tension in the urban fabric which disrupts the clarity of spatial organization. As many examples suggest, the clouded and damaged relationship tend to sap the energy of the public domain.

Physical attributes: City-Scale and Local

A public place can be approached from the urban perspective of the city or the scale of the individual user accommodating himself in it. It is important to know what kind of role the place plays in the overall public network of the city, its measure of *connectivity*. Among the local attributes we will look at the importance of the *dimensions, functional adjacencies, and the tractability* of the physical definition.

Positioning a public place with respect to these criteria will provide us with a mapping system describing the character and the potential of a particular public place.



SIZE

Public place superseding the size of the elemental unit in the city fabric

Public place at the hierarchical level of the city block

Public place is smaller than the organizational unit of the city fabric, taking over part of the city block.
Variations: half block, corner, mid-block passage across block, pocket park

IDENTITY

Establishes its own identity and generates its own activities from within - identity inherently ensues from juxtaposition to surrounding grid

Functionally problematic, since the adjoining functions are separated by traffic from the main body of the public place

Local identity, generally accommodating the uses spilling over from the adjoining developments. Mid-block connection has a possibility to aggregate to larger networks and draw energy from the inherently substantial pedestrian flow

CONTROL

controlled by the larger community, generally by the city

Usually controlled by the city or a larger institutional body

Mostly developed and controlled by the institutional developments adjacent to the public place, strong control is exercised

CHARACTER

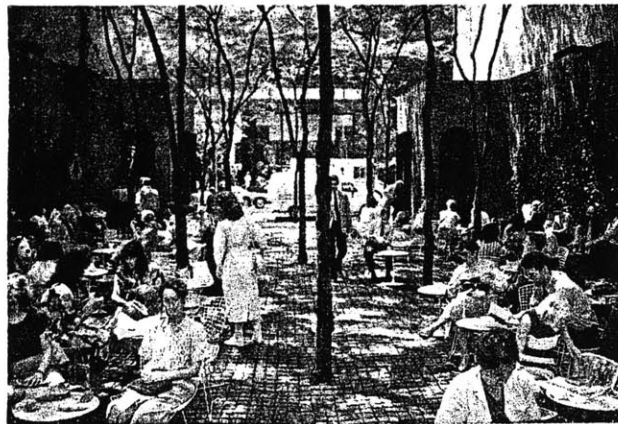
Offers a welcome change in the regularity of the city, therefore is used by Many. However, the use is often not related to the everyday life-pattern of the city

Uses are generally non-specific, mostly taken over by circulation, since the space often offers a shortcut. Usability is hindered by the traffic surrounding the place

Generally developed to obtain a specific character, relating to a singular function

33
Opposite:
Typology of public places
Diagrams and examples

34
Zion and Breen: Paley Park, New York



Connectivity

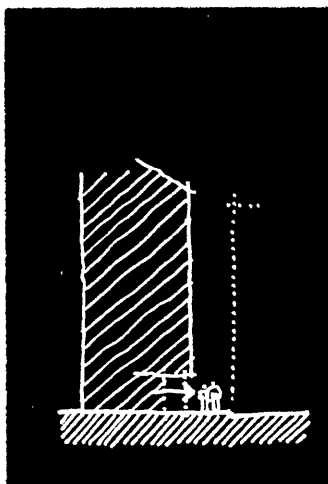
The public network of a *healthy* city is hierarchical: it offers places from community-size to small group size. In the dimensional hierarchy of the city, large public places are the primary organizational elements. *The commons* of earlier communities, or large parks, for instance, shape the physical disposition of the smaller elements in the urban hierarchy.

The next level in the hierarchy of the public network is the modification of the city fabric at the scale of the city block - resulting in plazas which conform to the main organizational patterns of the city fabric (block size plazas, boulevards, etc.) The smallest, and probably the most dynamic developmental pattern is the reconfiguration or reclaiming of the left-over spaces after a large portion of the city fabric has been realized. Many of New York's "pocket parks" are the result of this typology.

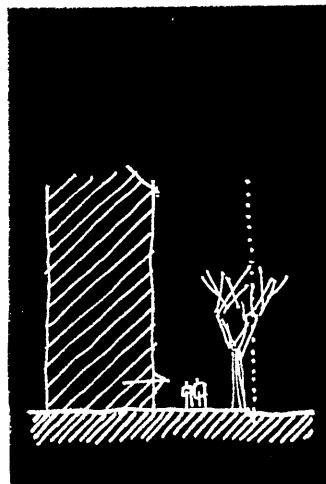
Apart from the dimensional characteristics, the intensity of the linkages between the various elements of the network is of great interest. The I-93 highway cutting through downtown Boston is a point in case: the separation has fundamentally changed the character of the Boston waterfront - not because its physical definition changed but because the degree it is connected to the rest of the network diminished.

Functional Segregation of the City

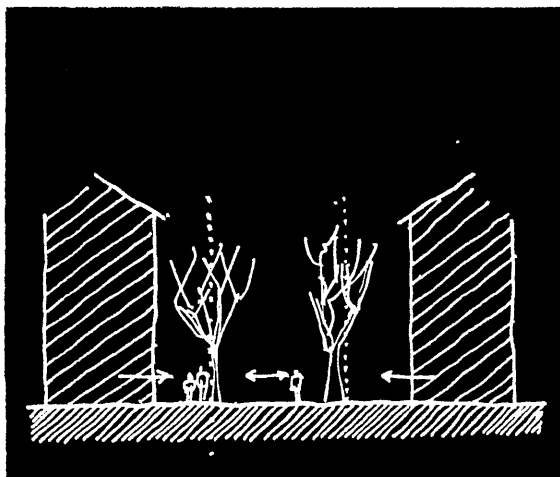
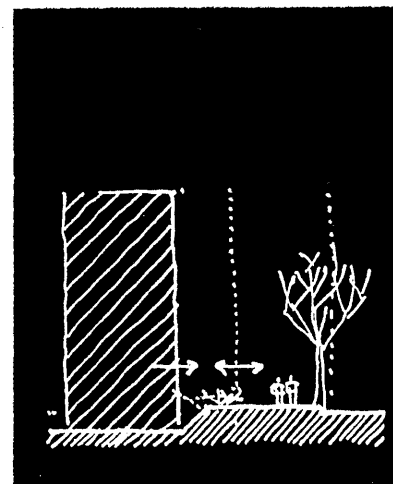
As our cities become more and more functionally segregated, the location of public places becomes proportionally more important in determining their success. Community parks surrounded by townhouses are very different from the representative parks in the downtown area. A public place is largely animated by the circumstantial pedestrian traffic. Therefore, it is considerably dependent on the life of



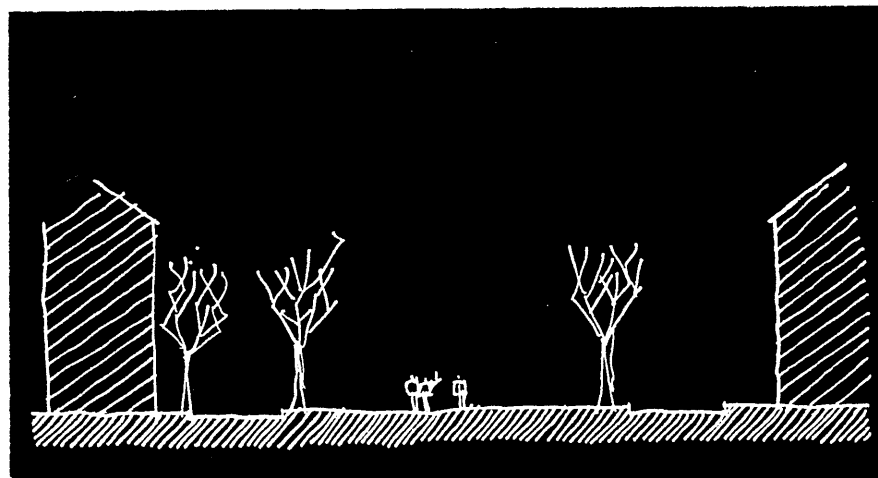
Minimal access dimension
4' - 8'
No opportunity for extended public use
Vitality is infused from the sides



Extended access dimension, without and with transitional zone
8' - 40'
Space can accommodate functional overspills from the surrounding area



Space becomes independent from the surrounding activities, but is not isolated from them. Offers a rich overlay of internal and external activities
30' +



Space becomes central and is isolated from the surrounding activities by streets or by impenetrable separation (wall). Activities are generated from within
30' +

its environment. Most of the urban plazas and squares depend primarily on the energy of their environment, rather than having a definite patronage on their own. With only temporal usage, the character of the plaza becomes rather impersonal.

Dimension and Tractability

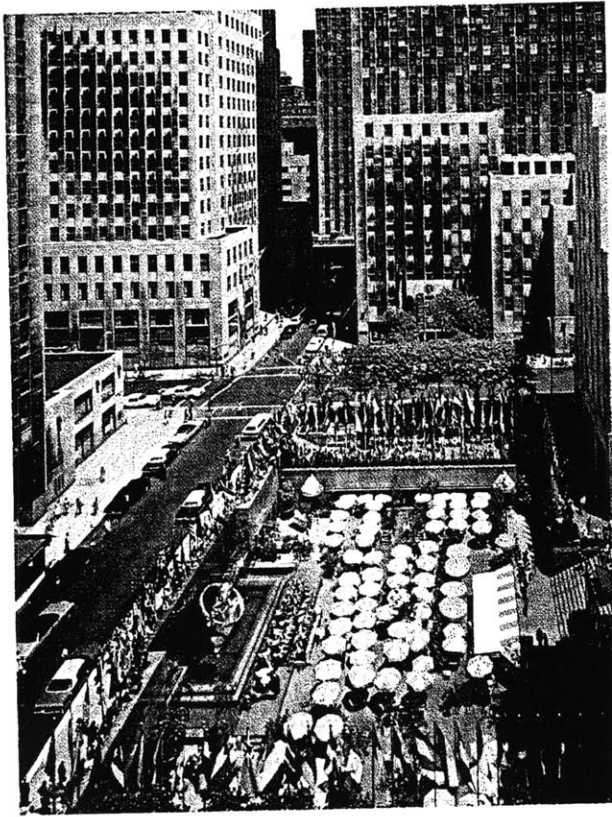
The dimension of a space is the primary indicator of the types of uses a place is likely to host. Certain dimensions correspond to certain uses, just as certain heights are associated with certain relationships. Therefore, a loose and approximate mapping can be set up of the different use-patterns which are likely to take place in the space, as permitted by the dimensional characteristics of the place. The function which dominates a public space needs to conform within certain tolerances to the actual size of the place.

The Café of *Au Bon Pain* at Harvard Square is an undoubted success in terms of public place. The cafeteria has extended a little bit of the French and the Italian tradition of the use of the sidewalk to the Bostonians. It is a question if it would have been adopted if the sidewalk did not happen to be 50 feet wide at this point, allowing for the adaptation of the tradition into American terms. This example nevertheless shows that the institutionalization of a public space is only successful as long as the functional definition closely relates to the given size of the place and it is accompanied by the right measure of physical definition.

The actual function invited by the place is, however, much more strongly determined by the actual physical definition of the place than by its dimensions. If the physical definition of the place is singular and rigid, so will its use-pattern be. Our studies show that one of the major components of the success of a place lies in its tractability, in the way it can flexibly follow the changing needs of its users.

[Noam] Chomsky introduced the concepts 'competence' and 'performance'. Competence is the knowledge that a person has of his or her language, while performance refers to the use he makes of that knowledge in concrete situations. And it is with this more -general re-formulation of the terms 'language' and 'parole' that a link can be established with architecture. In architectural terms you could say that 'competence' is form's capacity to be interpreted, and 'performance' is the way in which form is/was interpreted in a specific situation. (Hertzberger 1991, page 93)

35
Opposite:
Typology of public places II.
Sectional diagrams

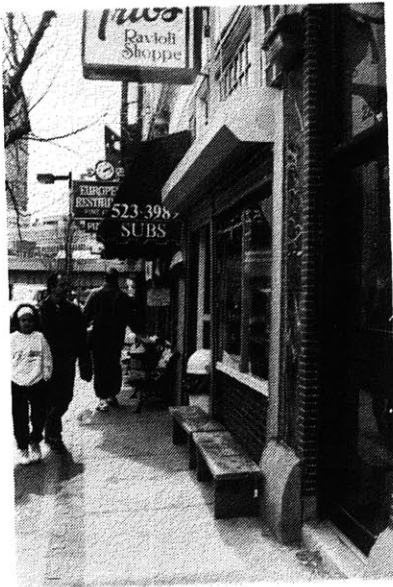


36

Two view of Rockefeller Plaza, New York. With the changing of the seasons, the character of the plaza changes as well. In the summer it is equipped with tables and sunshades, which protect the people not only from the harsh New York sun, but from the candid glances of the passersby as well. In the winter the plaza transforms into an ice-skating rink, amusing both sportsmen and the everyday pedestrians.

37, 38
Narrow side walk of Hanover street,
Northend, with minimal zone for
occupation

Below:
Boylston street sidewalk (appr. 35'
wide, providing a space for a wide
variety of public uses



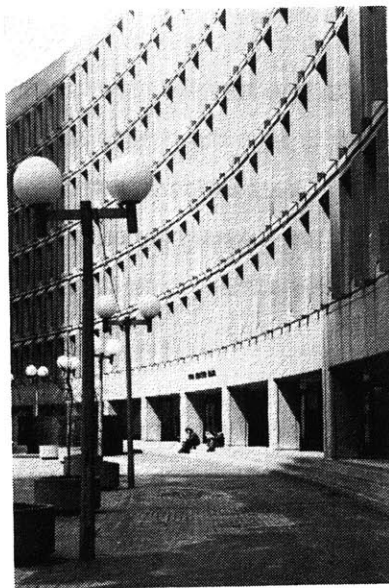
Societal changes, the size of the user group and the weather influence the way an open public place is used. The more a space is able to relate to these changes, the more successful it becomes. One well-known example for this is Rockefeller Plaza in New York which relates to the seasonal changes by becoming a ice-skating rink in the winter. In this sense, public places might become a measure of time, an indication of celestial changes. Often the only elements indicating the arrival of spring or the fall in the city are the blossoming of the trees and the warming weather. The physical framework of the city, however, is unequipped to respond.

Directionality

The most basic type of public places in the city are the streets, which, by nature, are linear. Generally, they are flanked by a set of activities on one or both sides which animate the space. The kinds of activity which vitalize public streets are further qualified by the dimension of the street and the sidewalk.

The other main category of urban public places, the focal type, denotes those places whose character is generated from within, as opposed to from the outside edges. The most prominent example for this type is the urban plaza which assumes the expanse of one or more city blocks. Since these spaces are generally surrounded by streets, the activities in the neighboring blocks cannot easily partake in the functional definition of the plaza.

The actual typology of a place also informs its potential interaction with its environment. Good public places possess a balance between a strong definition of the edges loaded with public activities and the necessary degree of openness which establishes a strong sense of connectivity within the city.



39,40
 Harvard Square
 Concrete ledges and steps provide space for public activities. The shops along the sidewalk all participate in the animation of the space

Below:
 Center Plaza embellished by benches and lampposts. Lack of public activity in the vicinity, however, limits the public usefulness of the space

When a Street or square strikes us as beautiful it is not just because the dimensions and proportions are pleasing but also because of the way it functions within the city as a whole. This needs not depend exclusively on the spatial conditions, although they often help, and obviously these cases are interesting as examples for the architect and urban planner. (Hertzberger 1991, page 64)

41

Public park adjacent to housing development.. Although the trees and the benches create a pleasant environment, the park is hardly used, since it is not linked to any adjacent activity



Functional Adjacencies

Another determining factor in the definition of a public place is the pattern of its adjacent functions. These functions assert themselves in the making of the space to a great degree, since their activities often spill out to occupy part of the public place, thereby influencing its use pattern. A particular aspect of this is the growing institutionalization of the public places, discussed in the previous chapter.

Harvard Square as a public space is *made by* the incredible variety of activities that color the character of the street edge. Most of the sidewalks are generously wide to receive the functions spilling over from the shops, cafés and restaurants. The edges of public and private blur, giving the pedestrian the opportunity to explore without interfere or without being imposed upon.

Physical definition

The architectural elements expressing the character of a place play a very important part in the success of a public place, but the range of possibilities at the disposal of the designer has not been widely tested. Natural elements - trees, flower beds, canopies, water - offer a setting which, although potentially pleasing to the eye, do not suggest any specific use. Columbus park on the Boston waterfront is carefully executed with its radial passages, canopies covered by leaves, comfortable benches. The majority of the people - after having walked under one of the canopies, settles on the grass, facing the ocean. If it were not for the view of the large expanse of the water, the park would be barren despite all of its embellishments.

The range of non-natural elements in the design of public places is considerably less charted than the scope of natural ones. Benches, tables, fountains, sculptures - the



42
Lawrence Halprin: Levi's Plaza, San
Francisco, California

common list is not much longer. To provide a more extended vocabulary for a novel definition of public places, the following pages offer a brief overview of various examples drawn from American cities, noting the dominant use of a given space and its relationship to the physical setting. They reveal the dimensional and physical quality of a few urban locales, both in their vertical manifestation and their horizontal definition.

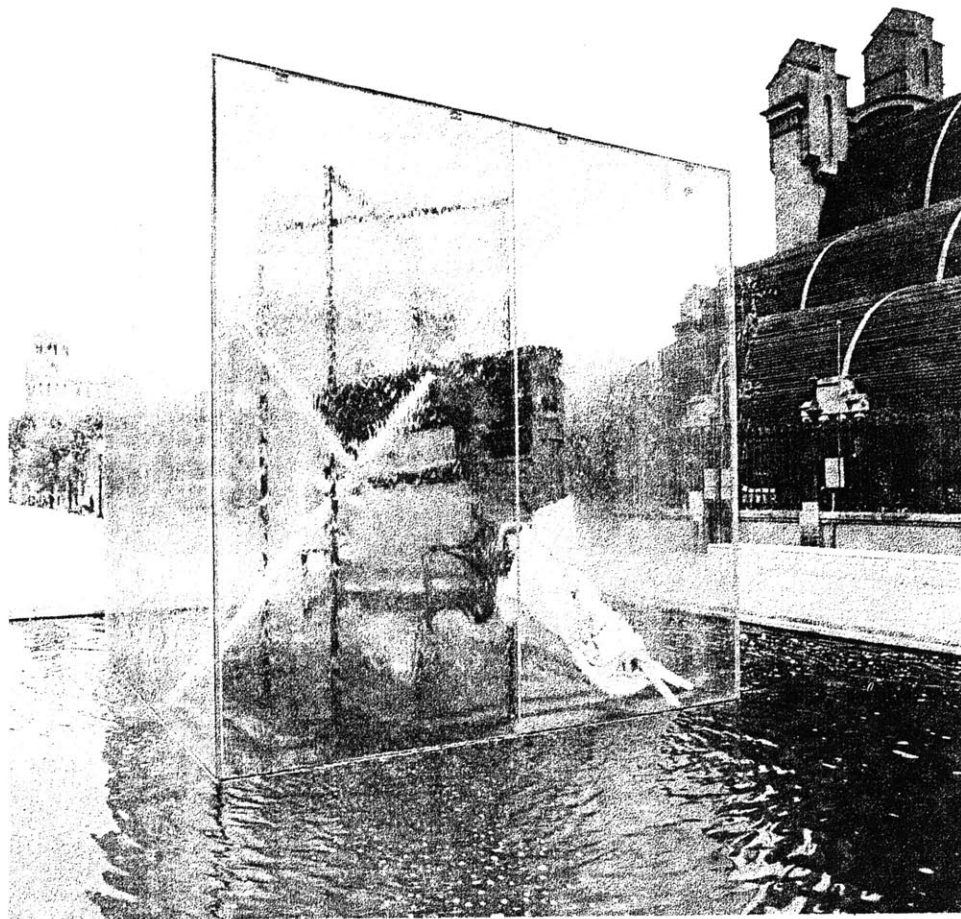
In general, the following criteria are established for the analyses:

- primary use,
- relationship to the horizontal and vertical dimensional measurements,
- orientation and continuity within the contextual city fabric,
- average height and deviation,
- sectional qualities,
- material qualities.

Since the direct purpose of this set of studies is to establish a framework within which the proposed design for the MIT Plaza at Kendall Square can be positioned and evaluated, the analyses will also weigh how the above qualities inform the kinds of secondary activities which the given place generates. From this viewpoint, the studies have to encompass changes occurring in the place over time and the cause and means of those changes.

43

Roser Amado, Lluís Domènech,
Monument to Picasso, Barcelona



*Physical form inevitably
has both behavioral and
cultural implications.
Man's environment must
necessarily be rich in
meaning and association.
(Anderson 1972, p. 8)*

*The latent environment
and the "loose fit" among
form, use, and meaning
permit the relatively
fixed physical
environment to meet the
difficulties of inadequate
information and of
societal change [...]. These
relationships permit
human innovation without
constant retooling of the
environment.
(Anderson 1972, p. 20)*

Primary types of public places

The following six categories of public places outline a system for capturing the most primary character of a place. They are arranged in complementary pairs, and the pairs are loosely linked to each other. A public place, therefore, can belong to more than one category - generally to one from each pair.

Aggregate spaces

- use generates space

generated by functionally linked spaces of different character, orientation, and dimension. The result is an informal, adaptable place which easily responds to the user and other variables in the environment.

Subdivided spaces

- space generates use

generated by establishing clear, typically strongly geometrical boundaries of the space, and then subdividing it according to projected function. The resulting formal quality is less flexible, yet can be infused by a particular function.

Embellished spaces

- space generates definition

the existing and potential qualities of the space are amplified by definition added to the existing framework, suggesting only local uses

“Theme” spaces

- definition generates space

the image of the place is driven by a single specific notion which is reflected in the physical definition, but not necessarily in the evoked uses, which can be rather non-defined.

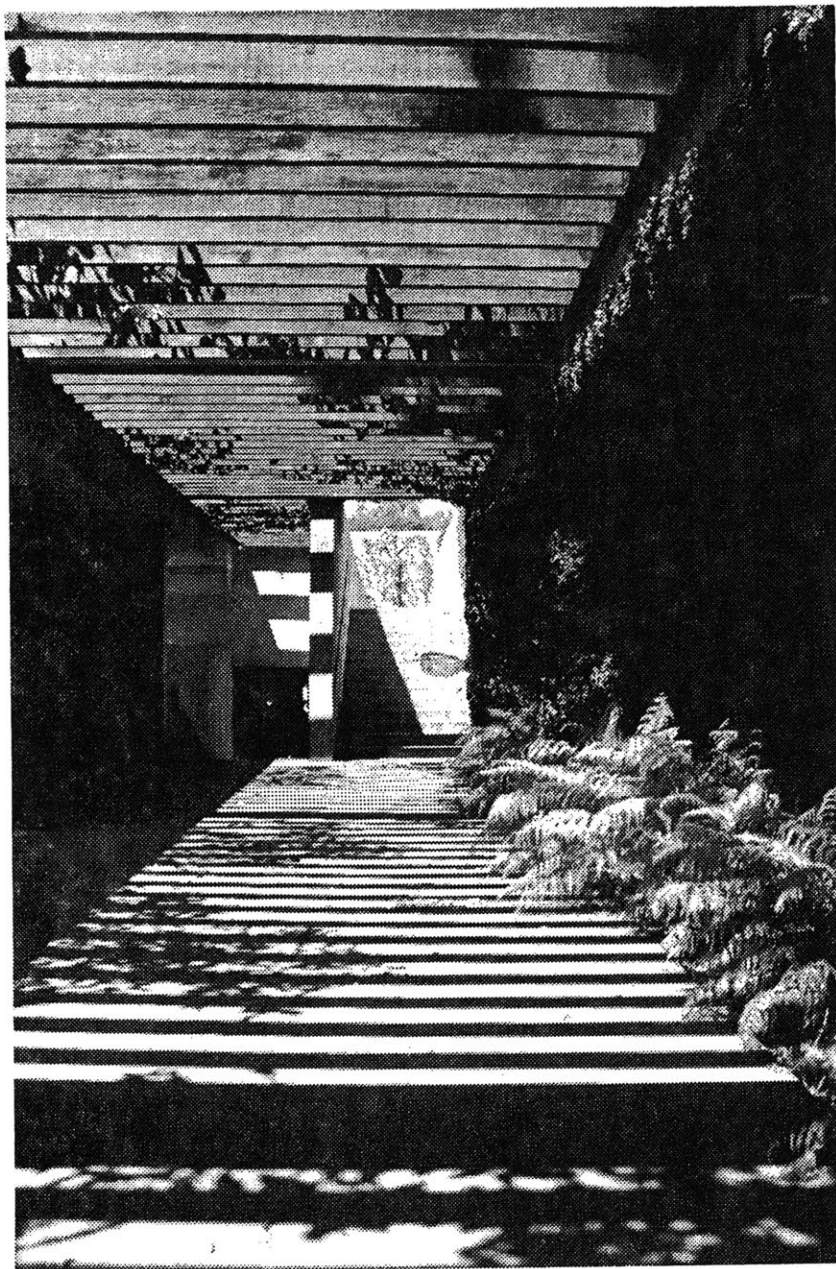
Exploratory spaces - experience generates space

the space unfolds as one moves through it, revealing more and more with every step, every turn. The changes in the definition, the vista, the enclosure offer a wide variety of experiences, yet become assembled as part of a larger whole - in the way of deductive reasoning

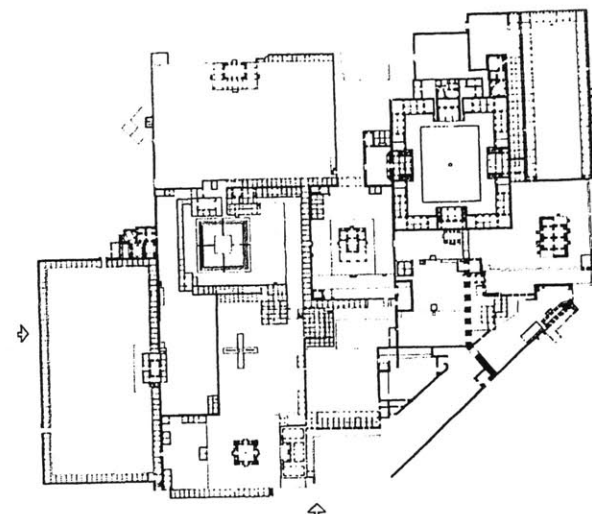
Submergive spaces

- space generates experience

the first glimpse of the space offers a comprehensive, clear idea about the organization and the quality of the place. One is enveloped in a realm that is separated by its totality from its environment, by its singular quality which invites the user to identify with it, to be submerged in it.



44
Kevin Roche and John Dinkeloo,
Oakland Museum, Oakland, California



1. Aggregate spaces - use generates space

Often a public place in a city emerges as the various uses aggregate and begin to define a larger territory signaling a shared community space. These places develop over time, most often by judicious addition and removal of elements in the fabric. The edges are often occupied by shops, restaurants, churches - activities which symbiotically coexist with the larger dimension they have slowly undertaken from the city fabric. Activities emanating from the edges give character to the space itself - giving and taking according to their momentary needs. The symbiosis is complete: the periphery would not survive without the community occupying the larger dimension within, and the space would be barren and meaningless without the supporting network within which it sits.

The emerging notion is rather intimate and informal, and it evokes images of medieval plaza complexes. The phenomenon of the aggregation of places, however, is distinctive in any town which has developed organically. Harvard Square is a rather confusing place in terms of orientation, since it has no clear boundaries, no separation between the places flowing into each other. The space is organized around nodes and focal points, significant elements, either functionally or architecturally. The vitality of the place more than compensates for the lack of orientation. The multiplicity of action, the variety of people and musical instruments played by them is remarkable.

Since the component places are not dependent on each other, they are flexible to accommodate a wide variety of situations: jugglers, percussion bands, demonstrations, picnics. The appeal of Harvard Square is in its tacit anticipation of the unexpected, in the permanence of change.

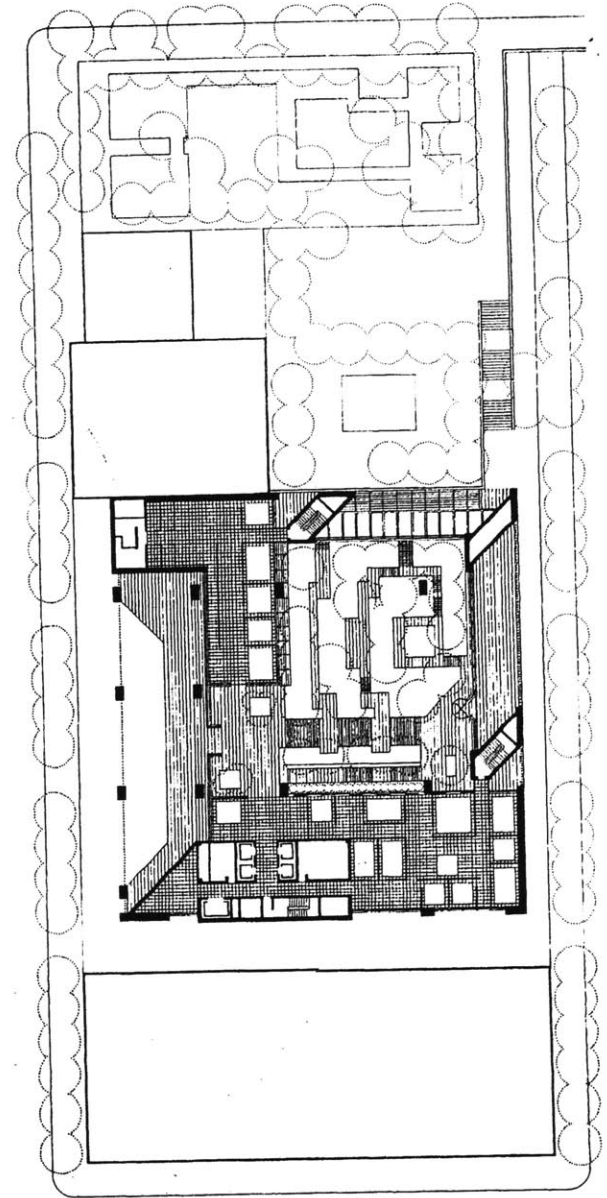
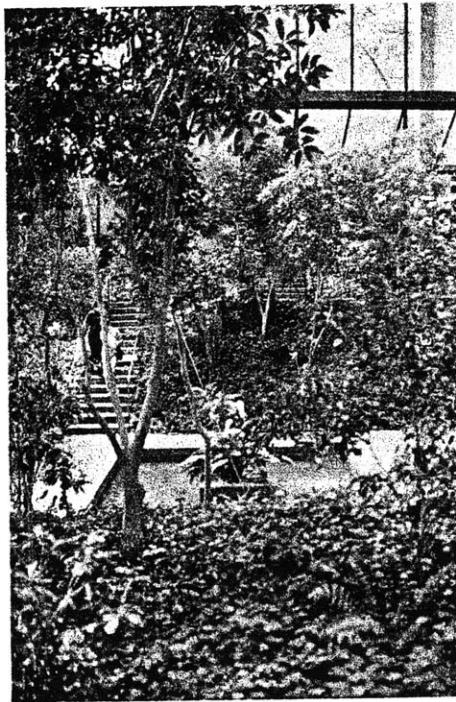
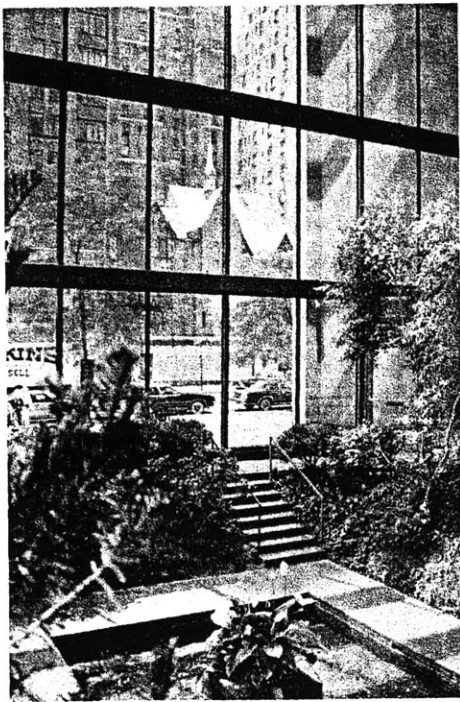
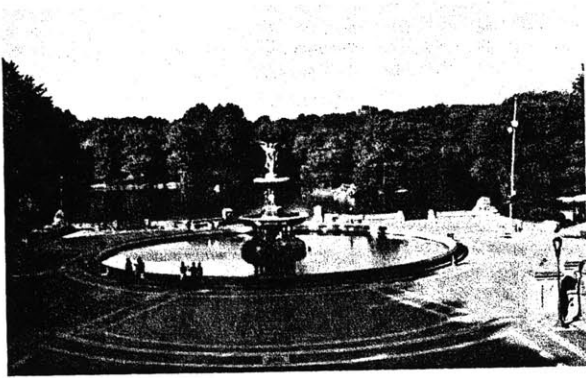
45

Opposite:

Fatehpur Sikri, India

The exquisite conglomerate composed of focal spaces gains its fluidity and coherence from the layered definitions which connect rather than separate the adjoining functions and from the constantly reinforced reference to the surrounding landscape.

Inset: Panch Mahal



2. Subdivided spaces - space generates use

Most of the places of the city today are formed following a preconceived idea about the role of a space in the public network of the city. There is much less projection about actual functions to be accommodated. The definition, without content, leads to a certain muteness or sterility, reminiscent of the Renaissance formal plazas, representative of a single ideal, and suppressive to the individual. The primary element is a strict geometry which is difficult to dissolve and appropriate for human inhabitation for an extended period of time. Plazas of this sort appear more and more often, not only in the corporate segments of cities, but in residential areas as well, where they inhibit human interaction. A place which is too rigid to allow children to play safely and elderly to relax is only a formal attachment to its neighbors, serving little more than the pride of having a "plaza".

46, 47

The Bethesda Fountain with a large lake in the heart of Central Park, New York, is a successful example for representative places. the fountain can be appreciated as a formal composition from the elevated roadway. "Olmstead and Vaux believed that there should be a place in a public park where crowds could gather, and because that was difficult in a natural setting, the traditional geometrical plan of a formal park seemed appropriate for the area." (Simpson, 1981. Page 12)

Below:

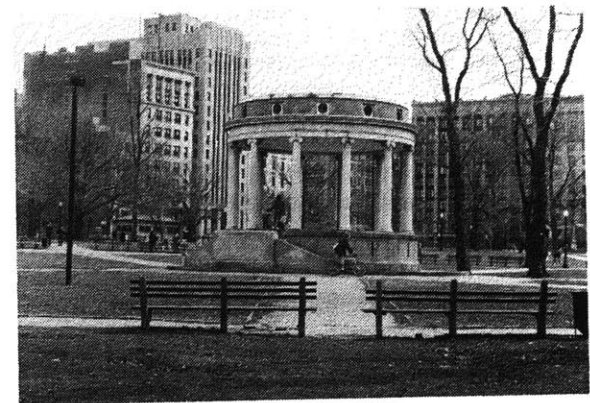
Kevin Roche and John Dinkeloo: Ford Foundation, New York.
Views of internal garden and plan

The overall geometry of the place becomes the device for further subdivision of the primary container. The resulting spaces are often laid out following a symmetrical order, offering a much more limited number of qualities and freedom than a less orderly system would.

A positive example for subdivided place is Quincy Market, where three parallel buildings define a rigid container. The two alleys formed by the buildings are not symmetrical, however; one of them is clearly dimensioned to contain more stationary activities such as eating and resting, while the North passage is linear, offering fewer places to stop. The space is flexible only within limits - it cannot perform as a large collective space.

48, 49
Post Office Square, Boston

Below:
Boston Common, Boston

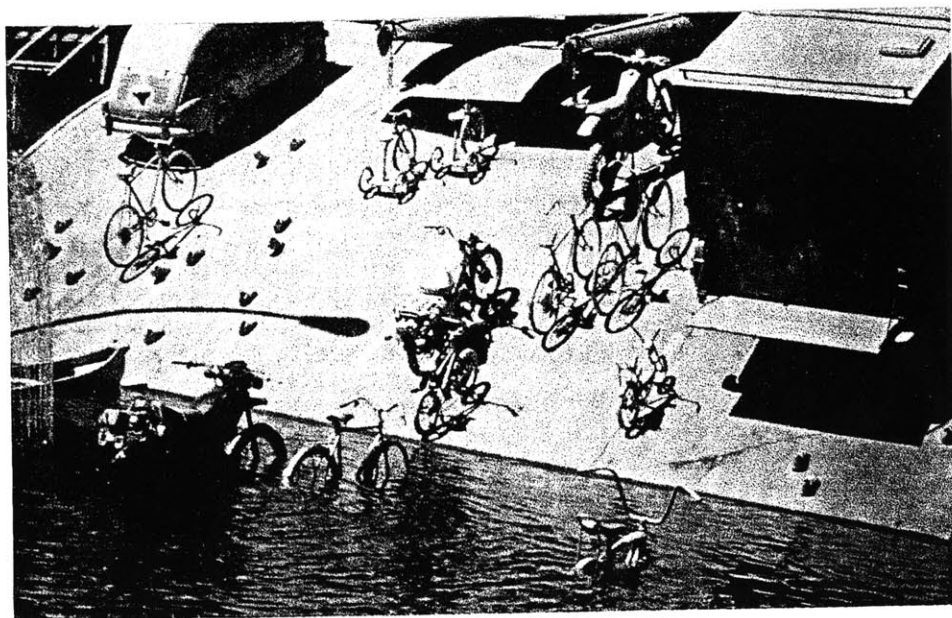


3. Embellished spaces - space generates definition

The actual physical definition of a space sometimes reflects an amplification of the primary qualities of a space while other times they are an imposition on them, which introduce a very specific association with the place.

The ambiance of Post Office Square is reinforced by the benches lined up under the long trellis along one edge of the park, the neatly kept lawn, and the carefully detailed pavilions and lamp posts. The parts speak to general human use, but they fail to add up to an experience which would distinguish Post Office Square from any other well-groomed public place in Boston, or, in the United States. The human scale is there, the components are pleasant to look at, but they do not engage the mind, they do not spur imagination or liberate one from the corporate confines of the office. The park conforms to the image of the office, efficient and pleasant, but somehow dull.

These places are courteous, non-discriminatory but non-specific. They reject nothing, favor nothing, and by their lack of commitment they offer very little to their users in the way of inspiration or invigoration. They are remarkably flexible - by their very nature -, but since they offer no impetus for any specific use, it takes an enormous force to appropriate them for communal functions. Revere Park could be cited as an example: the edges are reinforced by benches, the center of the largest communal portion is marked by a fountain, the linear quality is emphasized by the row of trees casting shadow in the path. The inhabitation is local and the parts of the place do not work in unison.



50, 51
Zion and Breen: Paley Park New York

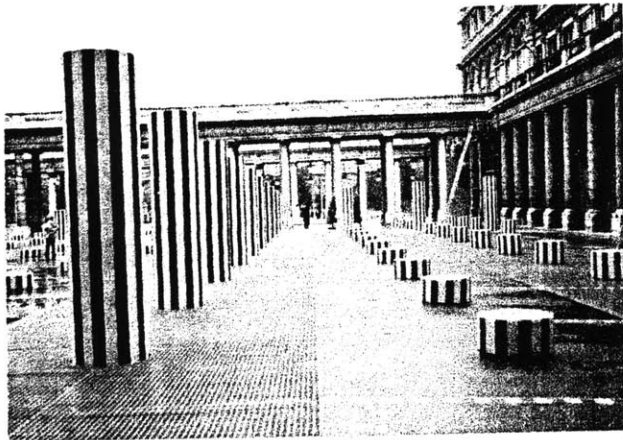
Below:
SITE: Highway '86. Vancouver, Canada



4. "Theme" spaces - definition generates space

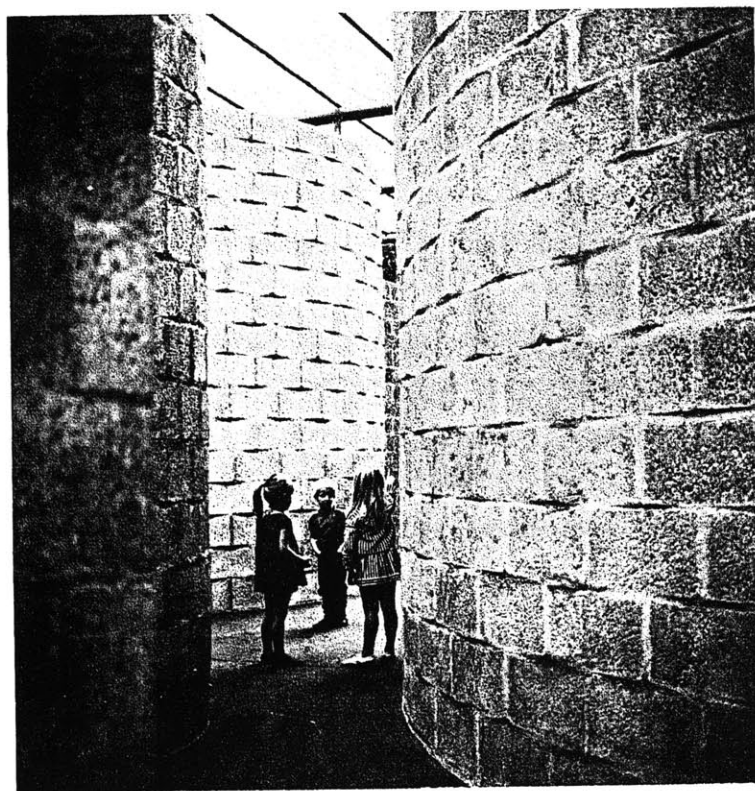
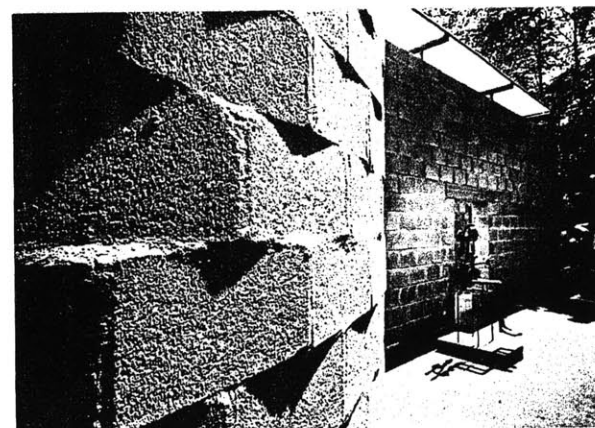
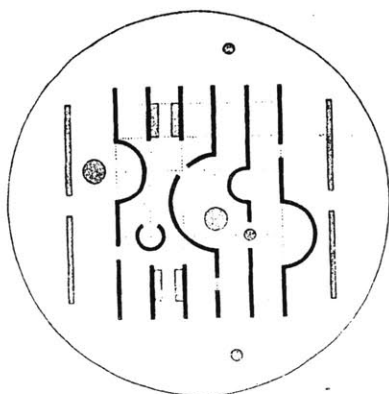
The Lovejoy park designed by Lawrence Halprin in Oakland, California, defines its own universe within the city. Although there are no tickets to buy, no gates to pass, one is clearly transported into a different mind frame when entering the plaza. Whether one is to dip in the cool water of the pools formed by the monolithic concrete walls or one is just looking at the children splashing around in the water, the experience one gains is clearly different from any other part of the city. The space appropriates its own space not only in the frame of the city but also in the minds of the people. It becomes a social icon, a cultural experience shared by the inhabitants

52
Daniel Buren: "Les Deux Plateaux".
Cour d'Honneur of the Palais Royal,
Paris, France



For this reason, theme places seem to assume a very important position in the perceptual organization of a city. This is even more characteristic when the theme place is strongly connected to the other elements in the urban network, and function as a connection between separate functional or physical elements of the city fabric.

Often the character of a space is derived from something primary, such as its dimension, as in the case of Government Center. Small places, however, become a significant part of the urban network most of the time if they are qualitatively distinctive. Paley Park, New York, although quite intimate and humble, has become a shared reference point for the pedestrian community, because it offers a different perspective, a different experience.



5. Exploratory spaces - experience generates space

It has been argued often that legibility and clarity of organization is important in order to orient the user. While this is undoubtedly true, there has always been a fascination with environments that are mysterious, hide unexpected nooks, that are a little like a maze, to be explored, and through the sometimes circuitous act of exploration, to be understood. Medieval towns offer a variety of compositional views, ranging from the disposition of the buildings to the details of the wrought iron banisters. The charm of these exploratory spaces lies in the fact that they offer a familiar, often very intimate environment, yet each element holds something novel for the traveler.

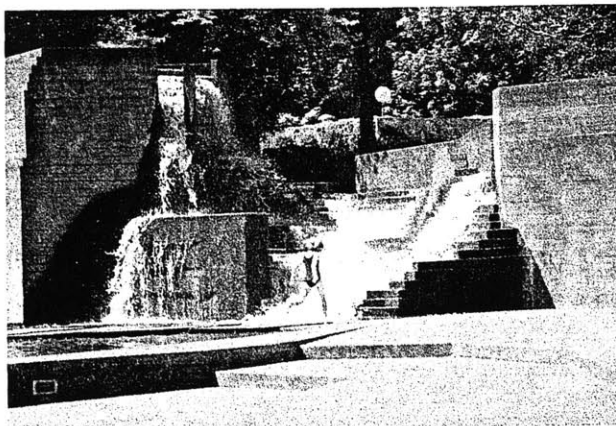
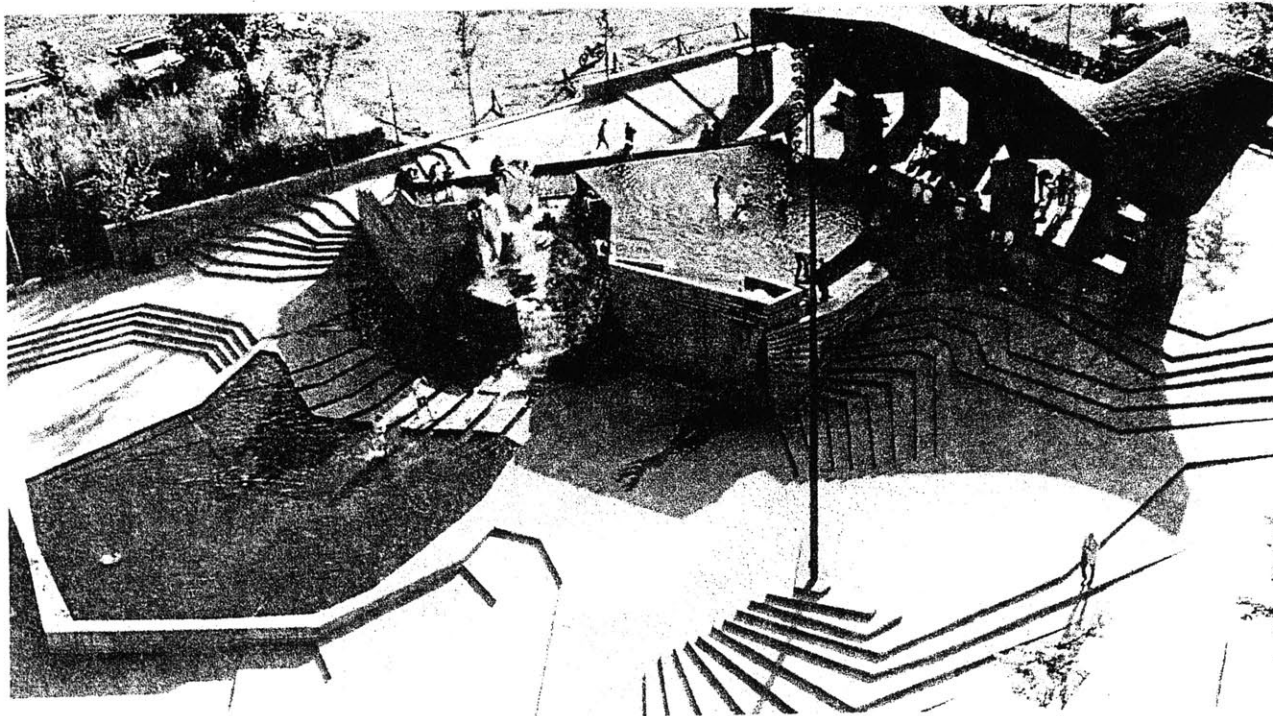
A similar notion can be found in some of the public places in Boston. Their richness lies in their multiplicity, and for this reason they usually are formed as an aggregation of a number of smaller locales. From the disparate experiences a coherent image emerges, fusing the parts into a congruous perceptual whole.

Beacon Hill, although it is not strictly a public place, does function in a similar manner. Its steep, brick-clad streets lined with old houses convey an image to the pedestrian loaded with expectation towards the particular, yet which provides a reassuringly stable point of reference.

53

Opposite:

Aldo van Eyck: The Arnheim Pavilion.
The pavilion slowly unfolds as one follows the curved walls, pauses in larger spaces encircling the sculptures. The walls limit vision and encompass the visitor. They define a separate reclusive in the woods - a labyrinth or a castle. "Central to my idea was that the structure should not reveal what happens inside until one gets quite close, approaching it from the ends. Seen from the sides it appears closed and massive - guarding its secrets".
(van Eyck)

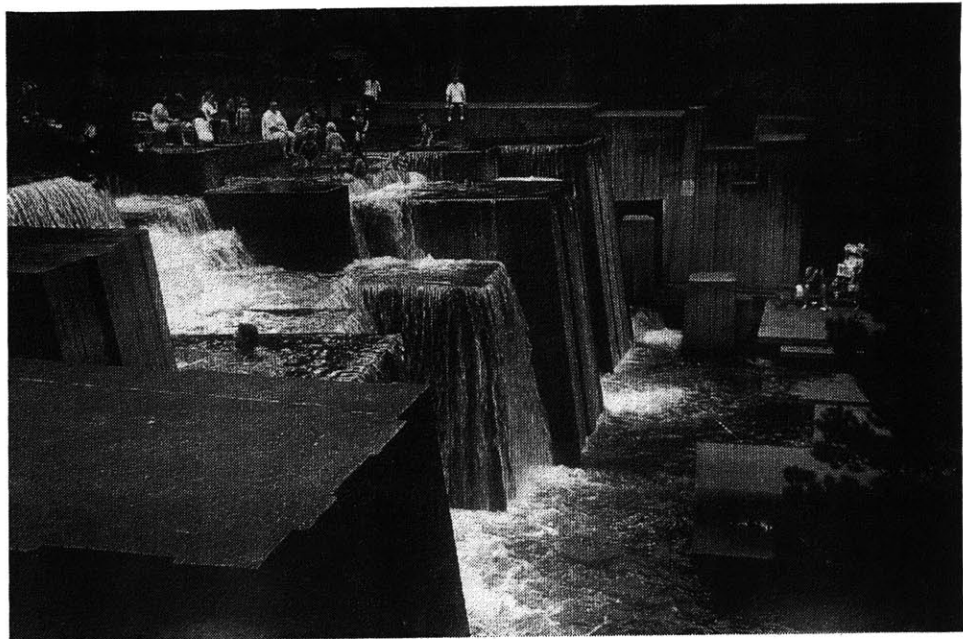
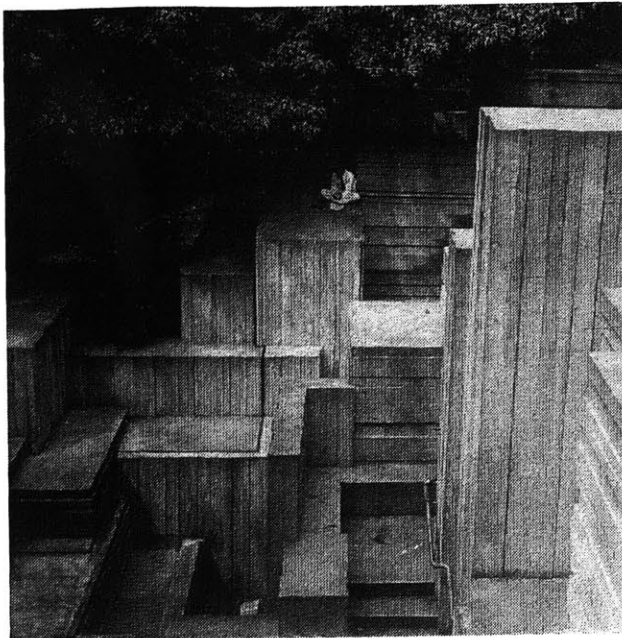


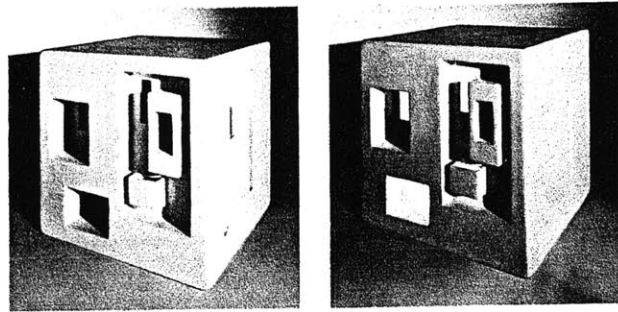
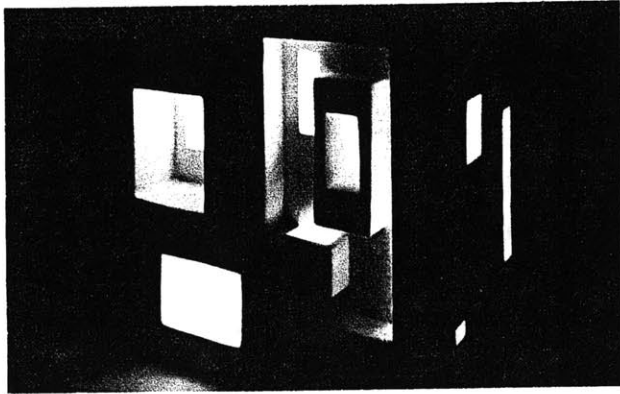
54a, b, c
Lawrence Halprin: Lovejoy Place,
Portland, Oregon

55, 56
Opposite above:
Lawrence Halprin:
Water fountain scapes

6. Submergible spaces - space generates experience

Submergible places act in the opposite way to exploratory places. They offer a comprehensive idea from the first encounter, the organization and the purpose of the place is made clear to the user. They are similar to "theme" spaces in the way they engage the user. Submergible places, however, often offer a much greater degree of personal freedom, they call for interaction, they entice the user to become a participant in the actual making of the place.





57
György, Kepes: Transformation of
Volume through Illumination

THE INDIVIDUAL IN THE PUBLIC PLACE

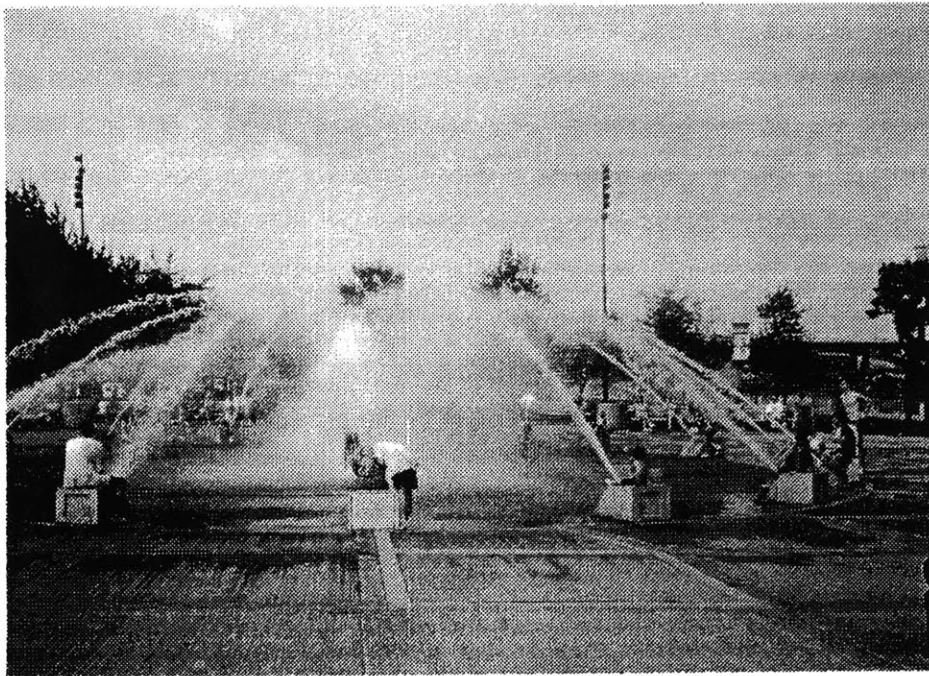
The notion of public places evokes an image of a group of people, who wish to use the space simultaneously, establishing a rapport with the environment and with each other. Often the definition of public places considers the "public" on the general level and forfeits its power to relate to the individual.

[Man] is more than economic man, more than political man, more than societal man. He is more than man the worker, man the consumer, man the tool-user, man the inventor, and so on. He is also man the sufferer, man the dreamer, man the aspirer, man the subject who knows joy, anguish, hope, love, tenderness, anger, frustration, fulfillment. These inward experiences of "being" are as much a part of man's real life as his doing. Above all, he is the creature who insistently demands that these experiences of being and doing add up to something which we can only call meaning.
(Doxiadis-Douglass 1965,

Physical and psychological relationships

The relationship between the individual and his or her environment manifests itself both in psychological and physical terms. One relates to a place or to an object because it might represent certain aspects of one's ideals, one's search for comfort or pleasure. No mute environment offers a basis for such a relationship. Elegance and opulence, characteristics that are overtaking a large portion of the public realm, catch the attention of people (Trump Plaza, New York), but at the same time create an uncomfortable distance between the place and the user. There is no friendliness, homeliness or other tangible gestures to people as active participants. That would require a relationship on the physical level, a connection which liberates the user to manipulate the momentary character of the plaza. In this respect, a sense of unfinished quality, suggestive rather than commanding, is a very inviting aspect of public places. The steps of the Metropolitan Museum change drastically with the spontaneous interpretation of the configuration by the people using the sidewalk and the entrance.

58
Interactive water fountain, Portland,
Oregon

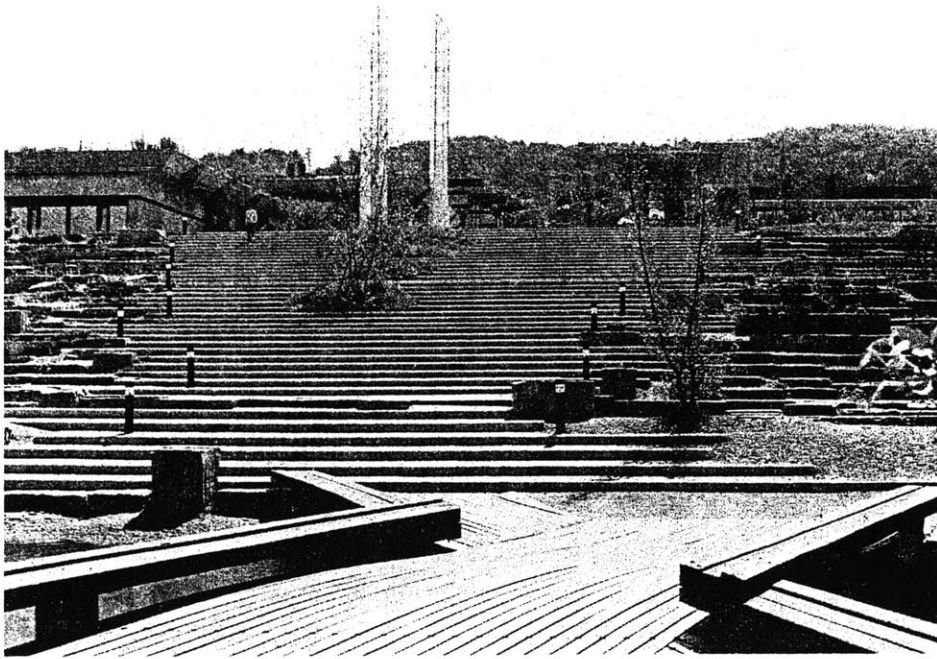


Design geared to maximum 'incentive' quality calls for a new and different approach on the part of the architect. What is required is a shift from the building programme, which usually reflects only the collective interpretation, to the multiple situation, individual or collective, as it arises in the everyday reality of everything that we build.
(Hertzberger 1991, page 164)

Interaction

A strong and generally very successful treatment of public places is the emphasis on interaction. Since most of the architectural elements in a place are immobile, most interactive public places incorporate secondary elements, most commonly water, to emphasize life, motion, and activity. Joan Brigham's water/steam fountain next to Harvard's Science Center is very much appreciated by students and passersby alike. They sit on the rocks, getting their feet wet, or walk among the rocks, clouded by the steam emanating from the tiny nozzles. The experience is unique: one enters a different realm, totally personal, yet shared by many.

Lawrence Halprin's city-scape fountains juxtapose two different notions, one associated with the position of the public place and another with its suggested use. The large concrete blocks creating basins of various sizes with steps leading to them and large, sun-flooded surfaces invite people to bathe. The effectiveness of these fountains is definitely site-specific: it depends both on the weather and on the nature of their environment. Would a fountain of this sort be used similarly if it were in the midst of office buildings? With cities segregated functionally, public places become very sensitive to their position within the separate functional zones. Yet the effectiveness of the tension resulting from a clearly private function invited to participate in the making of a public place can not be doubted. In the process not only the nature of the public place and the activity is reconsidered, but human interaction as well. This could be seen as the essence of good public places : the power of uniting the individuals by providing a unique kind of experience which forges them into a whole.



59
Stern and Partner: University Park,
Zurich, Switzerland

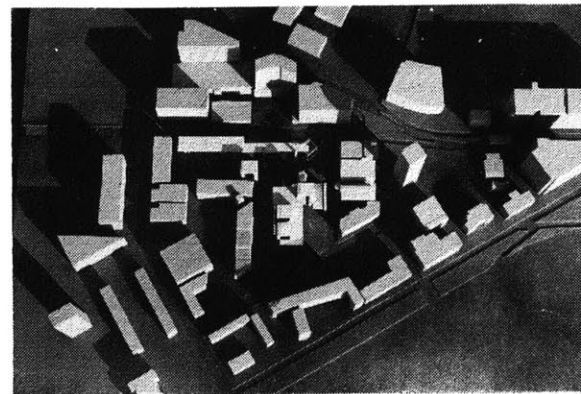
Imagination

Most of the places in the city do not offer the thrill of interaction, and, undoubtedly, people rarely venture into experiencing the whole variety of possibilities that a specific place might offer. Physical experience, however, is often successfully substituted by hints and allusions. Imagination is aroused and the place is inhabited by one through inference. The process is similar to the way we perceive nature. The vast expanses of fields, enormous rock faces have direct effect on the viewer by virtue of imagination. A small ledge on the face of the rock indicates a way the surface can be inhabited - it invites the viewer to imagine what it would be like to look at the world from that vantage point.

Architecture relates to its users the same way. The signs of people inhabiting the surrounding buildings and open places changes one's perception about the actual confines of the space. Through visual integration, the open space is animated by the surrounding activities, even though physical access might be cumbersome or limited. Most public buildings do not take advantage of this simple relationship and remain closed to their environment. The cafeteria serving the people working in the Hancock building is located in the basement. In a desperate attempt to relate it to the formerly traditional scene of public life, it is equipped with monitors projecting the life of the plaza outside... No separation could be more thorough or more counter-productive. Public places defined to provide a counterpoint to the internalized offices are doomed to failure. They could only survive if the offices which they are to serve would actually participate in the making of these places, sharing character and energy.

Within the same physical place, different individuals have different affective environments. Similarly, the intersubjective affective environment of society changes over time without necessarily changing the physical form.
(Anderson 1972, p. 11)

Part 2.
PROPOSAL FOR KENDALL SQUARE
- Design



URBAN CONNECTORS

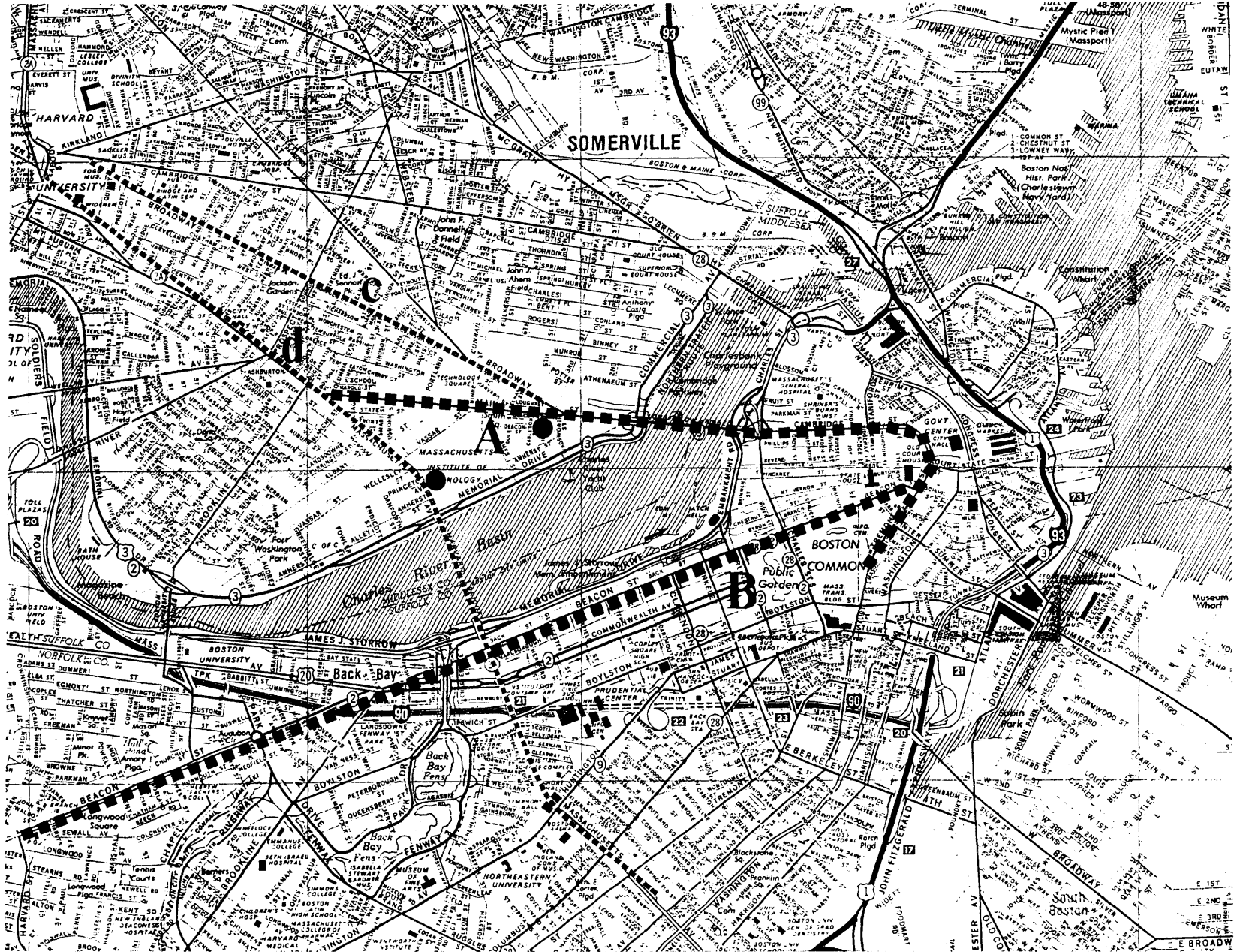
The diagram shows the main urban connectors that define the nature of the site in Boston and Cambridge. The most direct connection between Cambridge and Downtown Boston, Main Street, passes through the site, providing a vital link to its surroundings. The connection to East Cambridge is much more circuitous, due to the impenetrable triangle of the new development wedged between the MIT campus and East Cambridge.

The MIT campus and East Cambridge meet along Main Street, which becomes a linear separation between the two systems. The series of triangular territories generated by Main Street - Broadway - Hampshire Street - Webster Street make orientation in this part of the city difficult. The situation is aggravated by the introduction of many one-way streets. Kendall square has fallen victim to a similar reorganization.

- A. Main Street
- B. Beacon Street
- C. Broadway
- D. Massachusetts Avenue

The two dots represent the main access points to the MIT campus.

60
Previous page:
Sketch model of site
1" = 100'



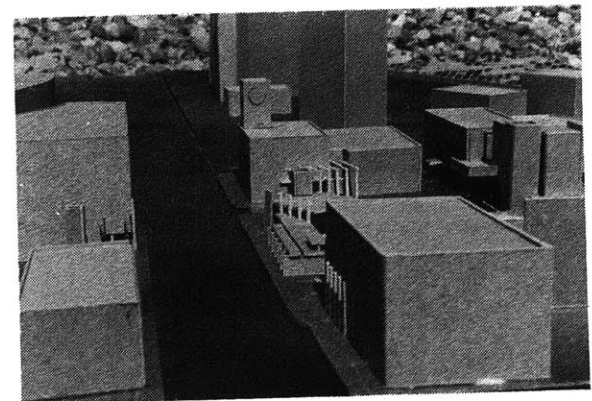
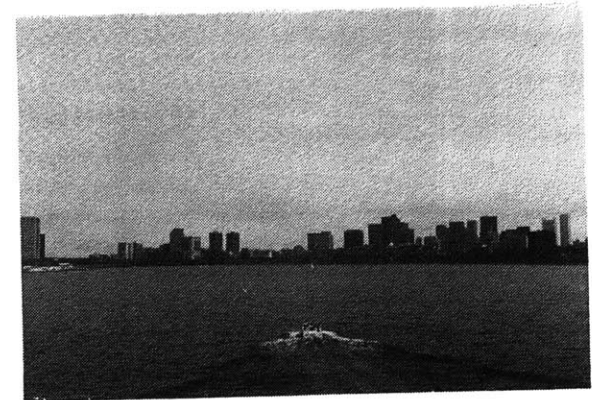
URBAN TERRITORIES

The MIT Campus lying along the north bank of the Charles River is a singular element in Cambridge relating to the river and the direction of the Backbay.

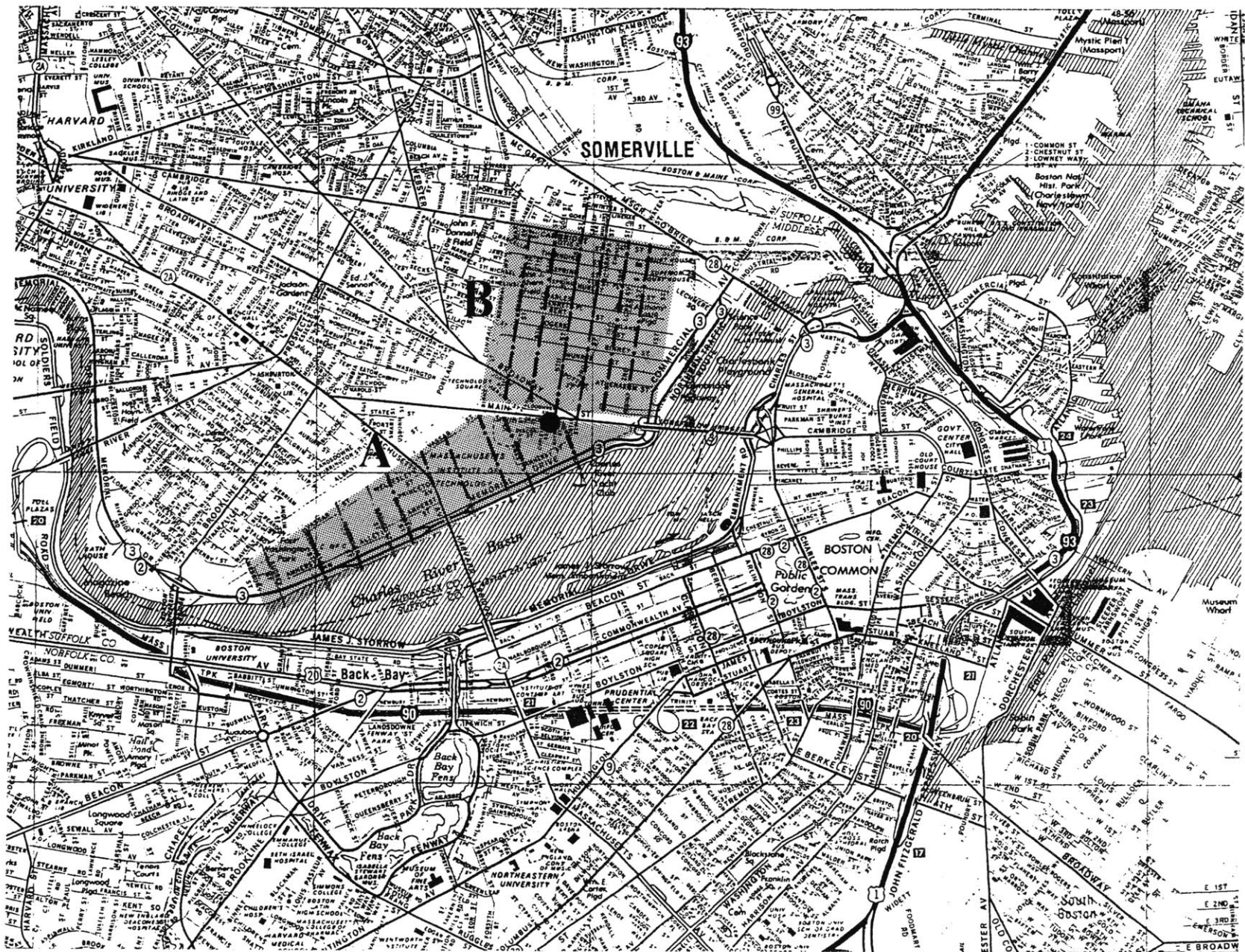
Its dimensional system is explained in the analysis of Bosworth's Beaux Arts design, which is based on a built zone measuring approximately 200'. The same dimension can be found in the urban system of East Cambridge, where the average block size is close to 200' as well.

61, 62
Silhouette of downtown Boston

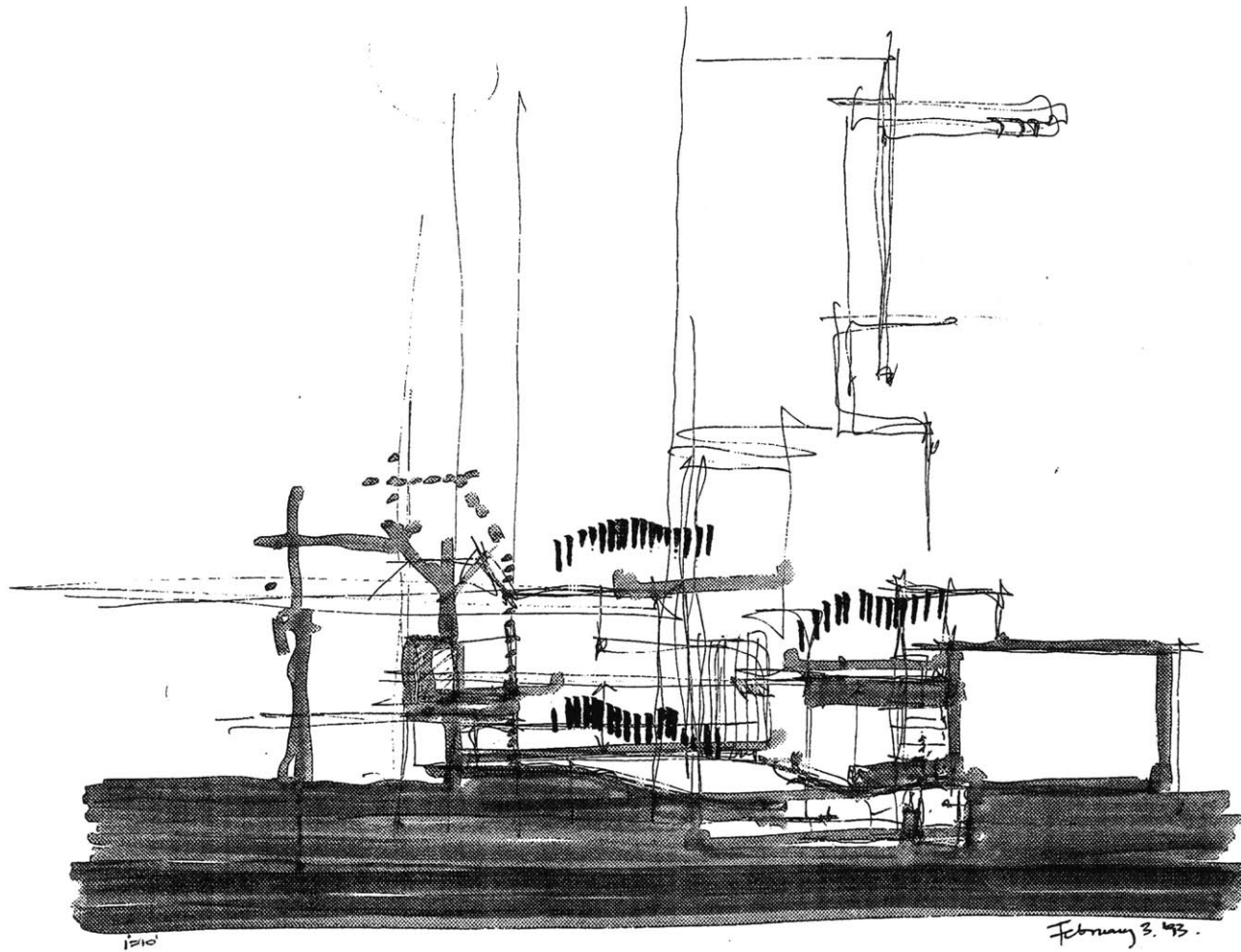
below:
Preliminary model
1" = 40'
View of Main Street
looking towards Boston



- A. MIT Campus
- B. East Cambridge



63
Sketch of character of inhabitation for
the new urban plaza on Kendall Square



THE PROGRAM ELEMENTS

The following section introduces a proposal for the development of Kendall Square, Cambridge. The main objective of the design has been to develop a unified environment which can serve at multiple functional levels.

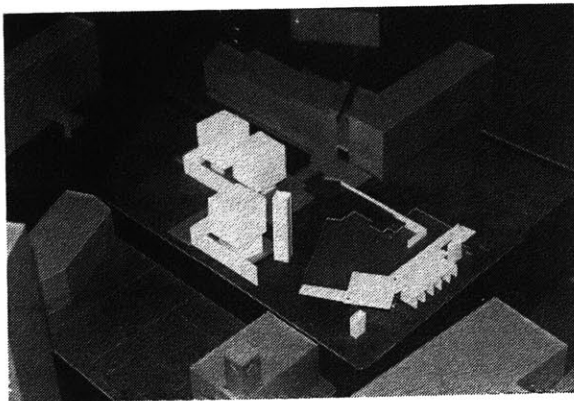
The Plaza

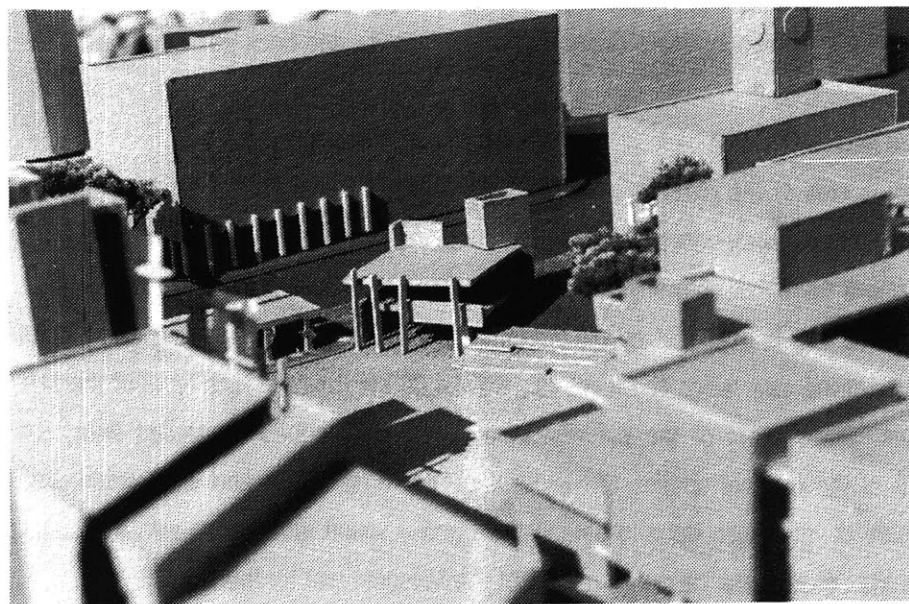
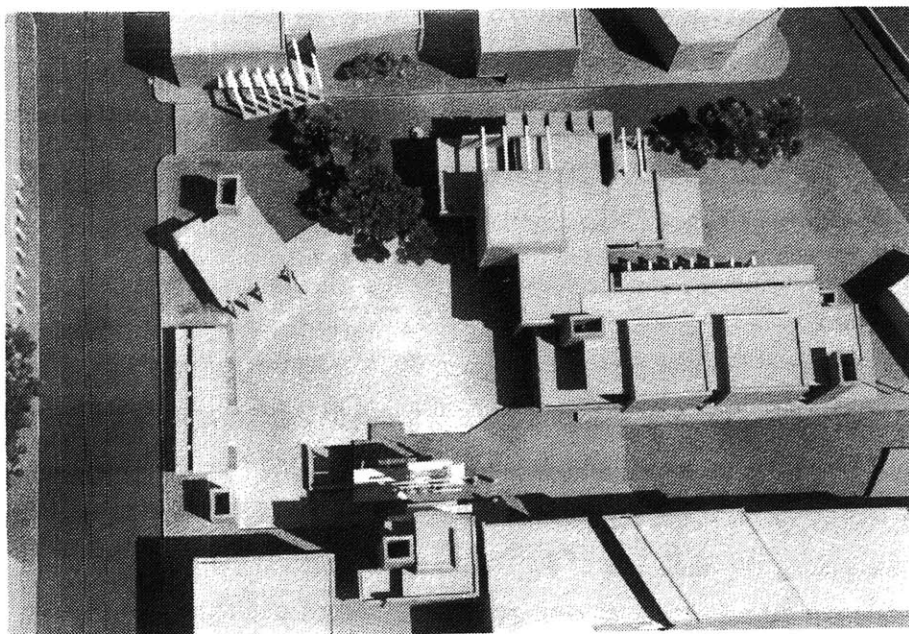
The main definer of the new center is the plaza which is sunken by 4.00' below the existing street level. This level change allows for a variety of edge conditions for use (low wall, sitting stones, information displays, etc.) The north side of the plaza is visually connected to the subway platform below. Since most of the direct circulation takes place along the south side of the plaza - which receives the least amount of light throughout the day; the north, east and the west edges offer the places that can be inhabited. The paving in the sunken part of the plaza is limestone, which responds to the weather conditions more dramatically than granite and brick paving stones.

The Museum

The South side of the plaza is occupied by the new Information Center and the MIT Museum. These components, along with some auxiliary facilities, are organized to complement the plaza both physically and functionally. The ground-related part of the building (+6.00') is occupied by the Information Center in the west wing and by the Cafeteria in the east wing. The level above (+24.00') is the reference level of the MIT Museum. Since most of the exhibits in the museum require controlled light, the closure of the internal spaces are layered on the east, south and west sides. The north side is very much open to establish an active visual relationship with the plaza. This is the zone where the public places of the Museum can be found.

64
Diagrammatic model of formal and
programmatic framework





65, 66
Final model
Bird's eye view with Main Street
on the left

Below:
The subway station on the east side of
the plaza aligning with the angle of the
Infinite Corridor



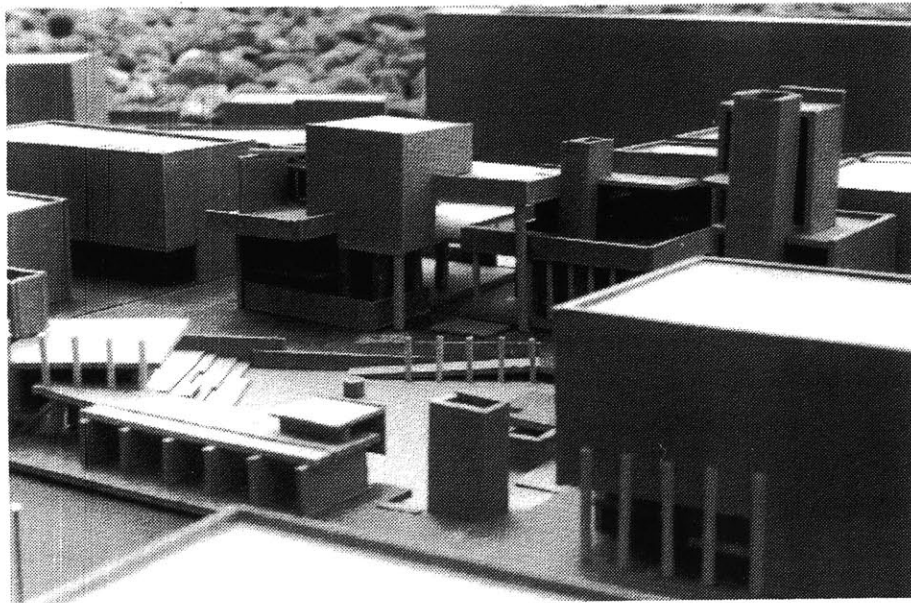
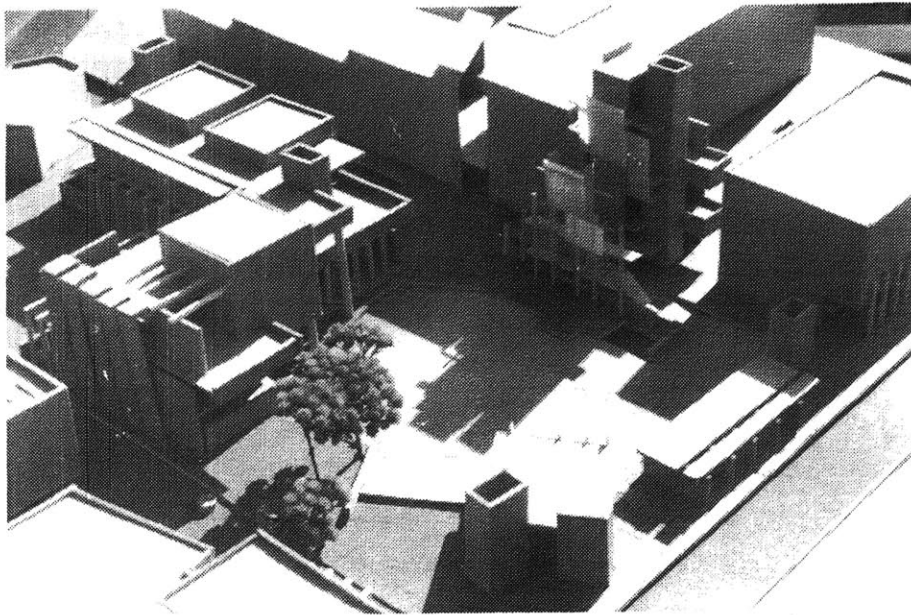
67
View of the lobby slicing through the
Medical Building

The main exhibit spaces of the Museum are contained within two cubic structures which provide a great degree of flexibility for the definition of the space, both in terms of light and physical arrangement. The third cube functions as a performance space, similar to the one in the Media Laboratories.

Additional exhibit spaces are arranged adjacent to the cubes, with different light conditions. The exhibit area terminates in the public place on the south, where the secondary elevator and staircase can be found.

The Subway Entrance

The subway entrance is positioned along the street edge on Main Street. With its new location relative to the Medical building, it sets up a diagonal movement across the site which roughly corresponds to the direction of the Infinite Corridor. The entrance building is mostly transparent to allow for a visual connection towards the Longfellow bridge. The entrance building sits in between the two different levels of the street and the plaza. Relating to this level change a mezzanine is defined, which, along with the space below, can be used for eating in bad weather (accommodating the activities spilling over from the adjacent Au Bon Pain), selling flowers, newspapers and the like.



68, 69
Final model

View of the plaza looking back along the Infinite Corridor. The Museum is to the left, the tower with the media screen is to the left

Below:
The open passage between the Information center and the Cafeteria, bridges by the Museum. The light-filled passage connects the plaza visually to the waterfront

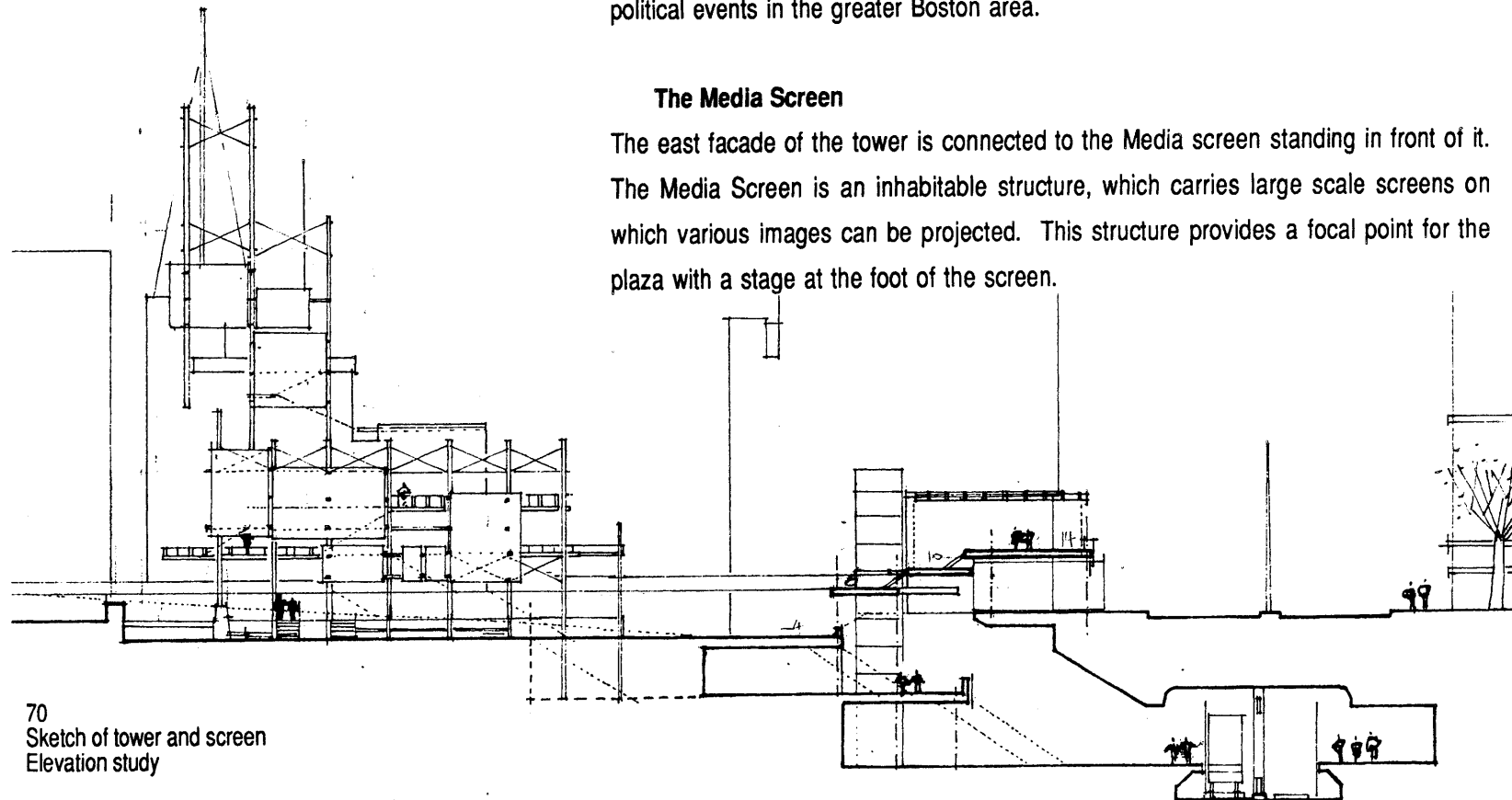
The Tower

On the west side of the plaza adjacent to the Medical building a slender tower is proposed. The tower is organically connected to the circulation system of the Medical building and provides public places for each floor of the building. Visually, the tower breaks down the singularity of the old building, and provides a juxtaposition to the light shaft of the cut-through in between the two parts of the Medical building.

The ground floor of the tower is a ticket booth for Boston shows and performances and another part of the Information Center where one can learn about the cultural and political events in the greater Boston area.

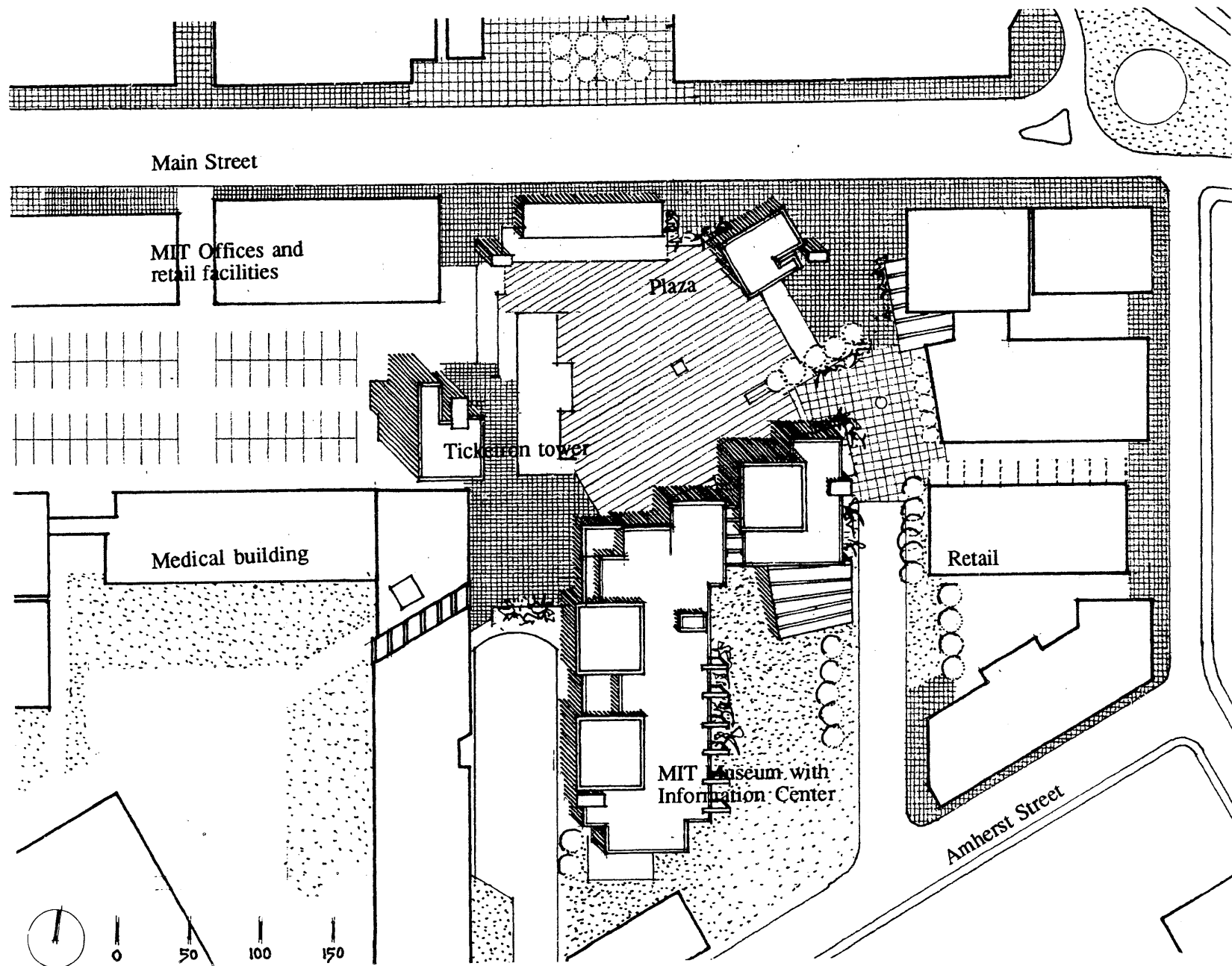
The Media Screen

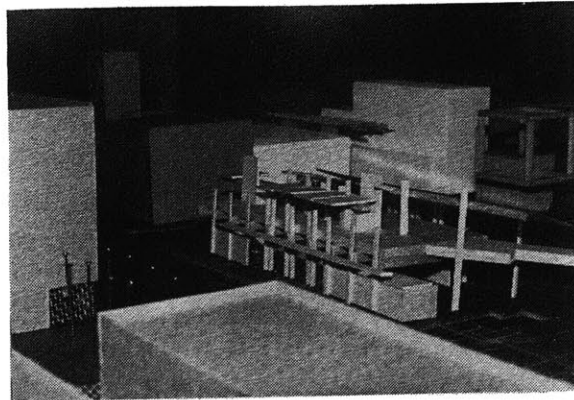
The east facade of the tower is connected to the Media screen standing in front of it. The Media Screen is an inhabitable structure, which carries large scale screens on which various images can be projected. This structure provides a focal point for the plaza with a stage at the foot of the screen.



70
Sketch of tower and screen
Elevation study

71
Site plan

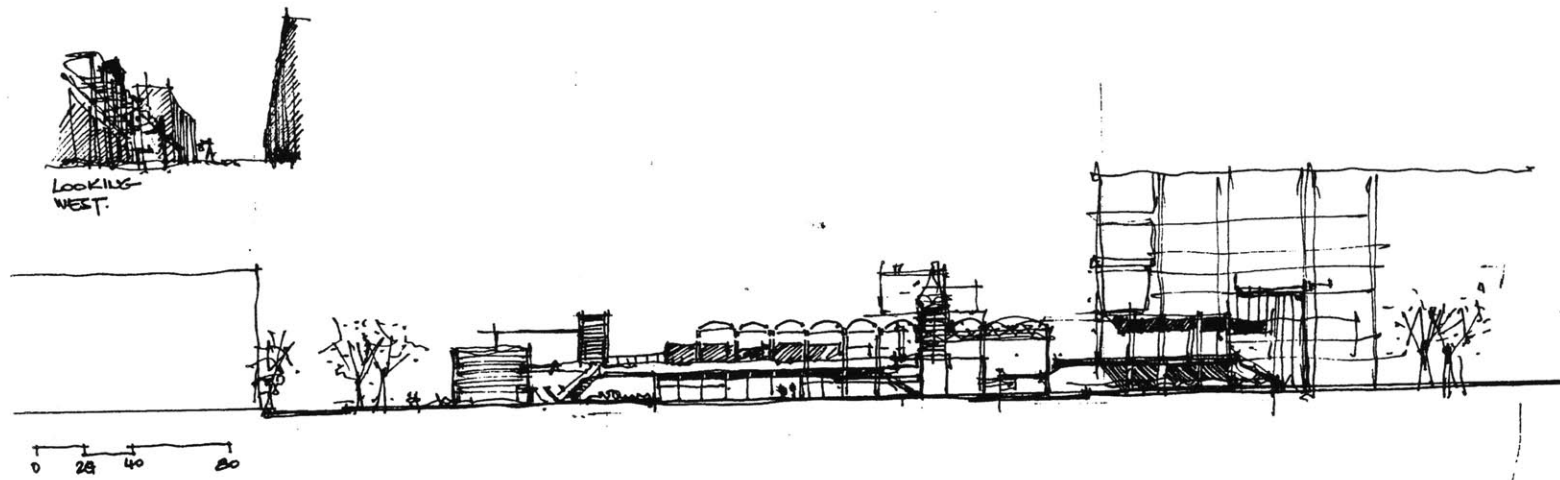




72, 73, 74
Study model of interaction and
separation between plaza
and Main Street
1" = 40'

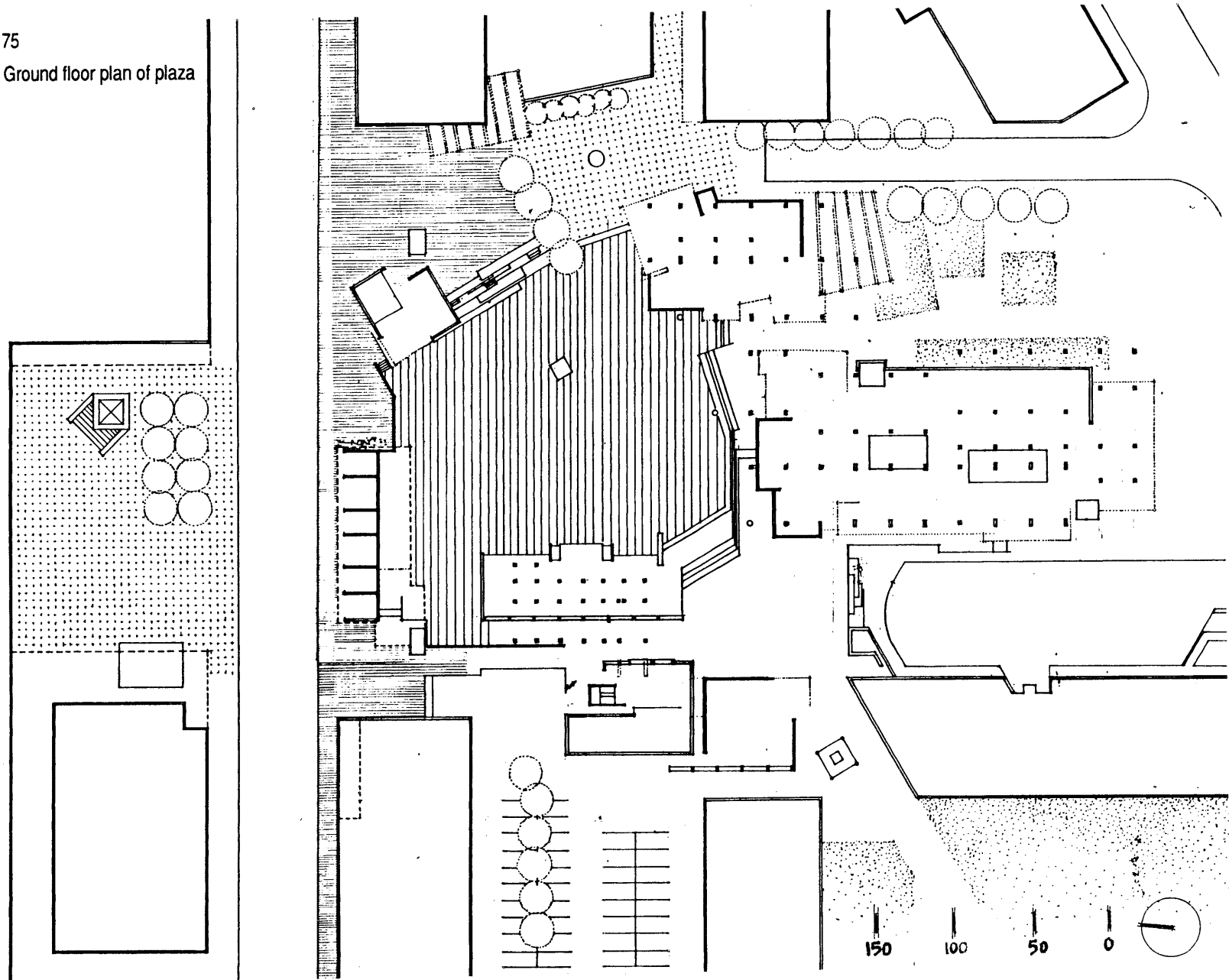
Right:
Main Street

Below:
Elevation study of Main Street



75

Ground floor plan of plaza



PEDESTRIAN CIRCULATION

Directional generators:

Main Street
Infinite Corridor

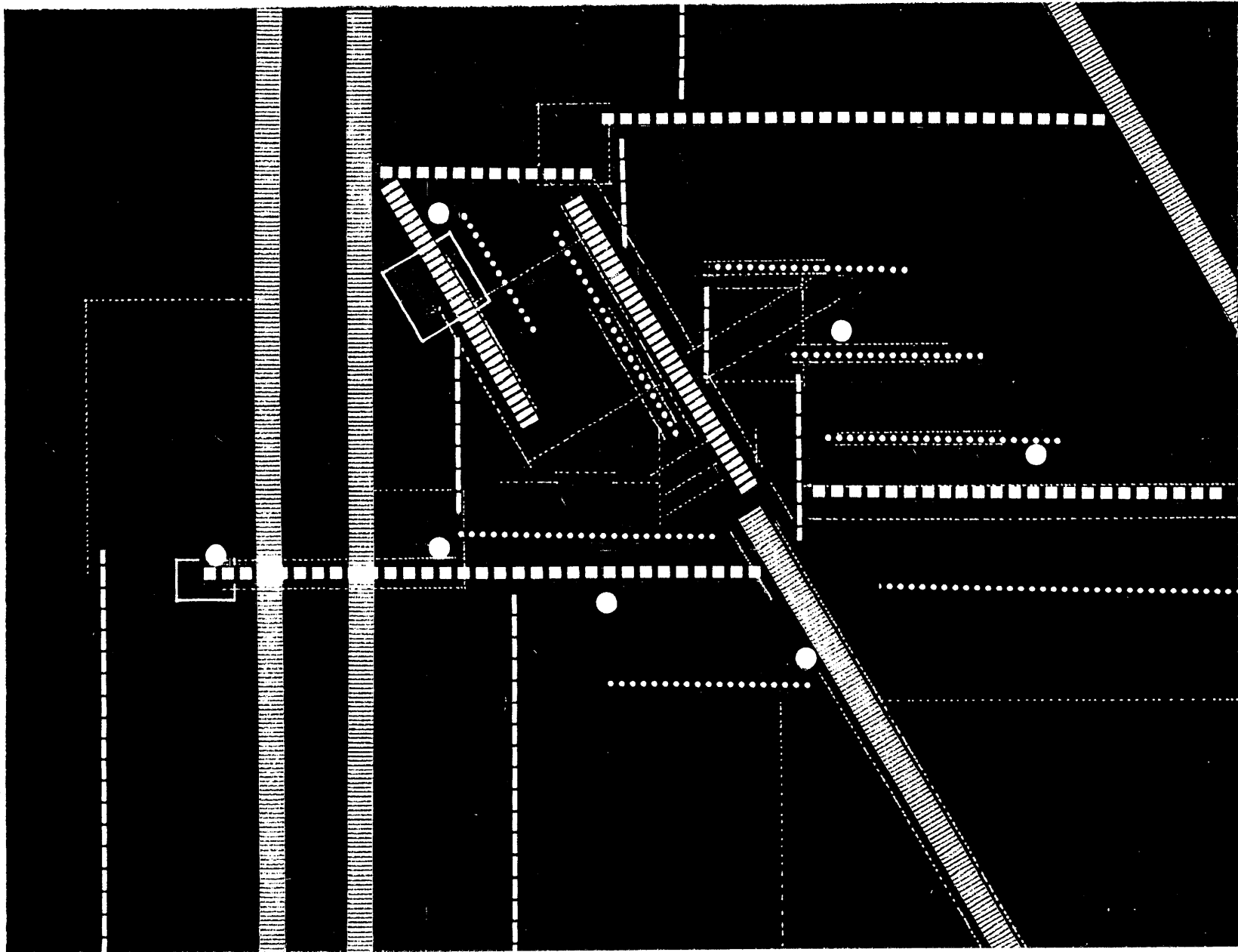
Spatial generators:

Entrance at the Medical building
Subway entrance

To increase the public intensity in the new plaza, the two elements that define the major circulation pattern of the space are positioned diagonally across from each other. The circulation between these two points is then diffused by offering a variety of pedestrian walkways. This multiplicity also enable the space to be used in a flexible manner without impeding on the everyday circulation.

The most public ways are broken down into smaller, less directional pathways both outside and inside the buildings.

The dots represent vertical circulation nodes.



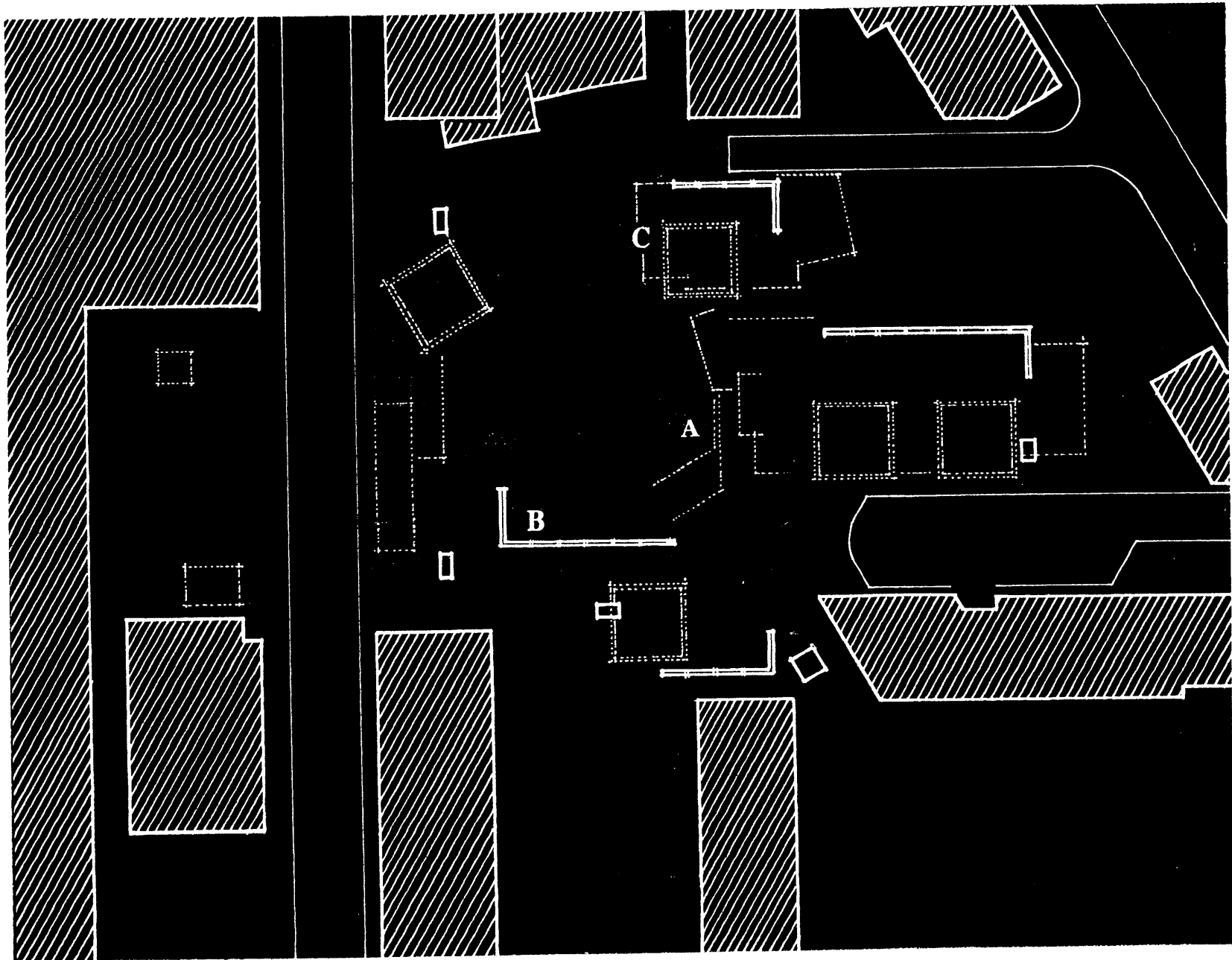
ORGANIZATIONAL ELEMENTS

The main organizational element of the plaza is the ground form which suggests a circulation and use pattern. The main direction of these level changes is the direction of the river and the campus, related closely to the experience of the ground and of nature. The inhabitation of the square is largely determined by the variations in the edge conditions.

The built space of the plaza, on the other hand, relates to the direction of East Cambridge - a more urban fabric. A series of walls and five cubes set up the space which the built form claims, as an integral part of the enclosed areas.

The walls define privacies (kitchen, exhibit areas, etc.) and mediate the two prominent directions.

- A. Ground Form
- B. Walls
- C. Cubes



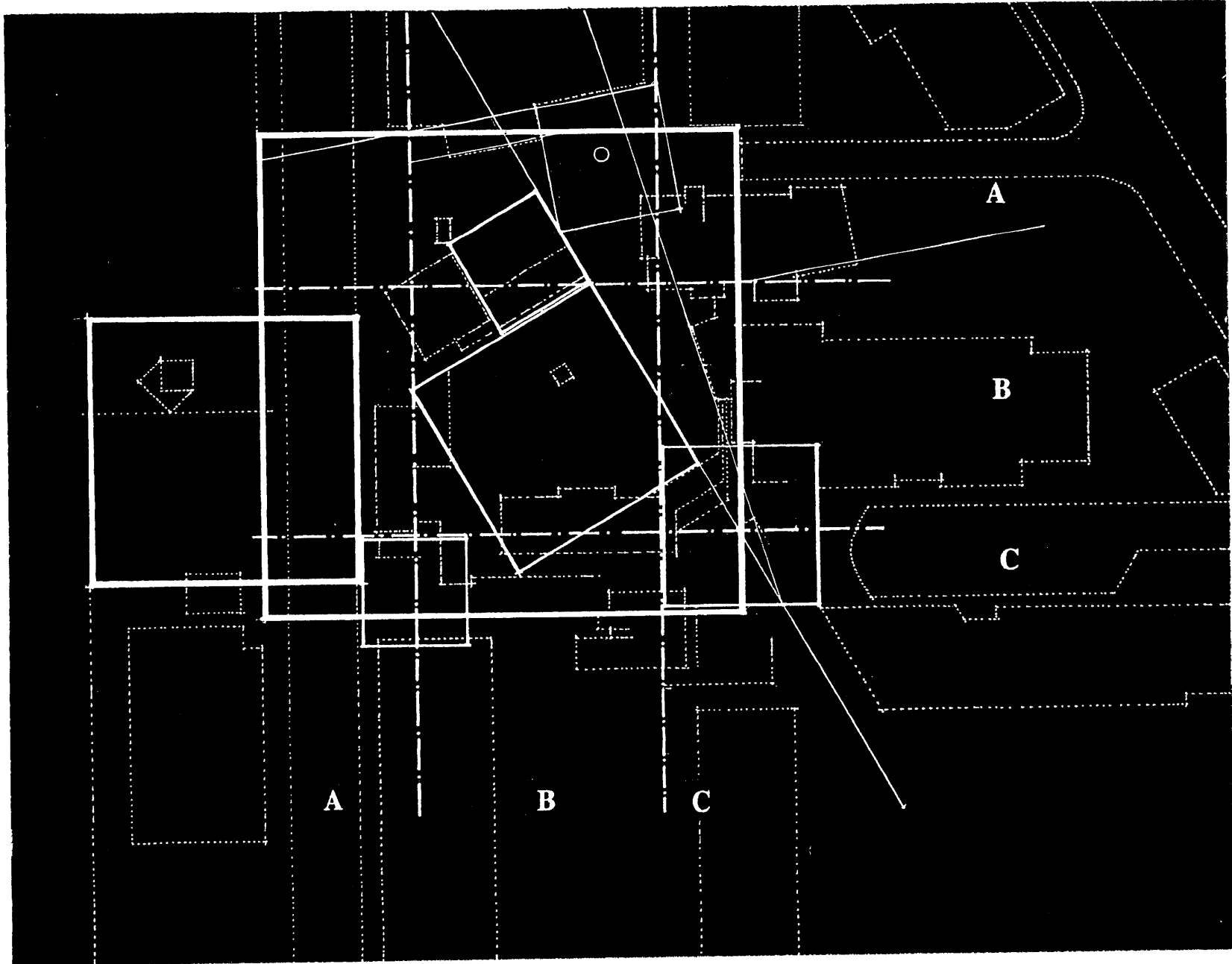
DIMENSIONAL ANALYSIS OF OUTSIDE SPACES

The spatial resolution of the change between the directions of Main Street and the infinite corridor is based on the extension of the public zone of Main Street. This is achieved by pulling back the most public element of the program, the MIT Museum. The resulting large square is similar in dimension to Killian Court, but is spatially defined further to respond to the large spectrum of user need that might arise.

The square is organized in three zones in both directions:

- A. primary circulation (street)
- B. use space (sunken plaza)
- C. secondary circulation (to Museum)

The same organizational principle governs the definition of smaller places as well. Thus, the spaces are generated by the displacement of the access at all hierarchical levels. The angular shifts are generated from the vantage point of the Medical building entrance. The same angle informs the orientation of the intermediary spaces adjacent to the Au Bon Pain and to the new MIT Cafeteria.

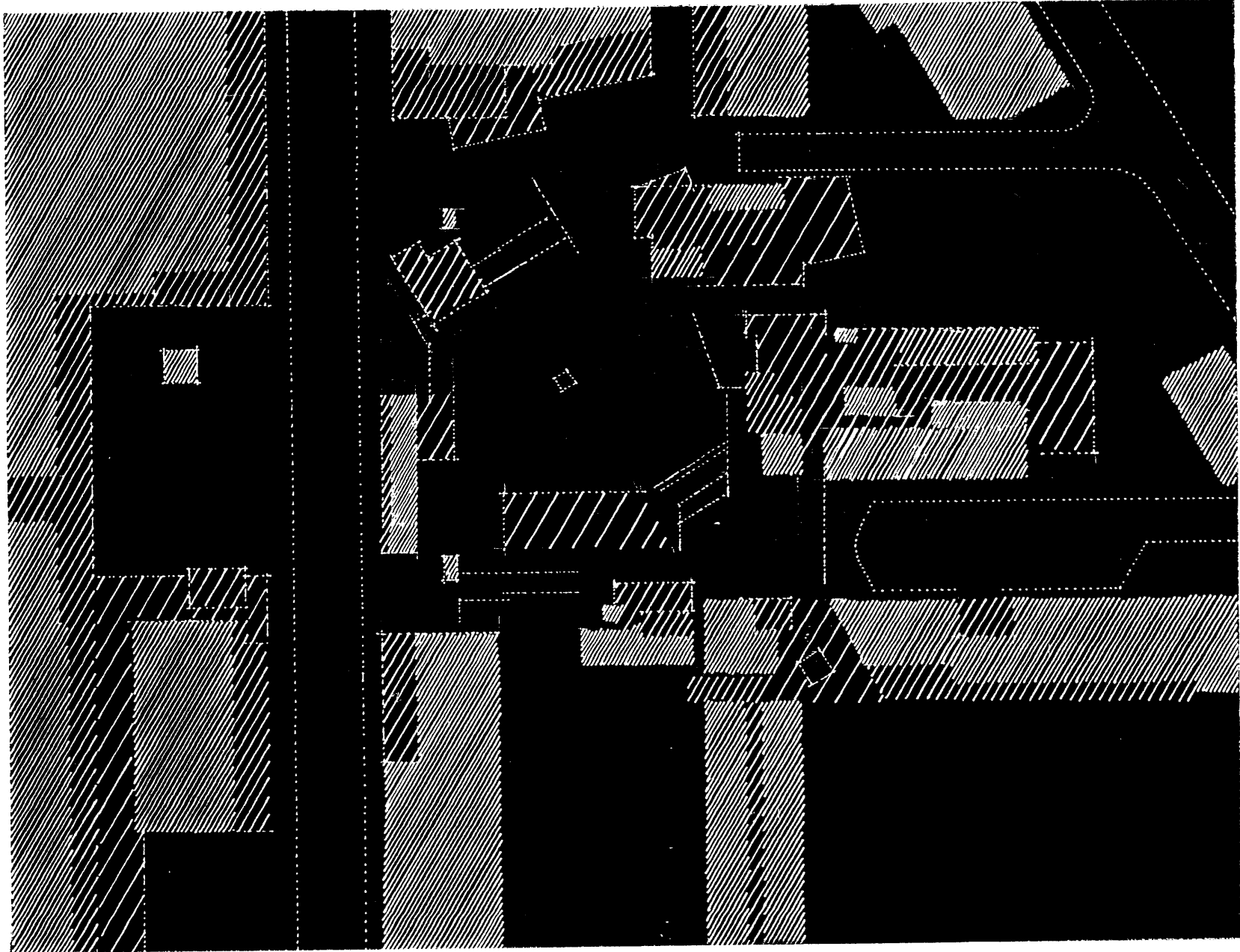


PRIVACIES

In contrast to the solid, impenetrable nature of the surrounding elements, the new buildings on Kendall Square attempt to integrate inside and outside, expanding the territory which the public activities might inhabit. This attitude towards public buildings seems essential in a climate where the weather is forbiddingly harsh in almost half of the year.

A direct layering of public places is achieved by adjacencies of certain functions and their visual and physical connections.

Major circulation routes and vistas are defined by the most public elements, revealing new spatial relationships as one proceeds. The public zone penetrates the buildings deeper not only in the horizontal, but in the vertical direction as well. Large horizontal planes in the Museum signify public zones which are functionally related to the main plaza.

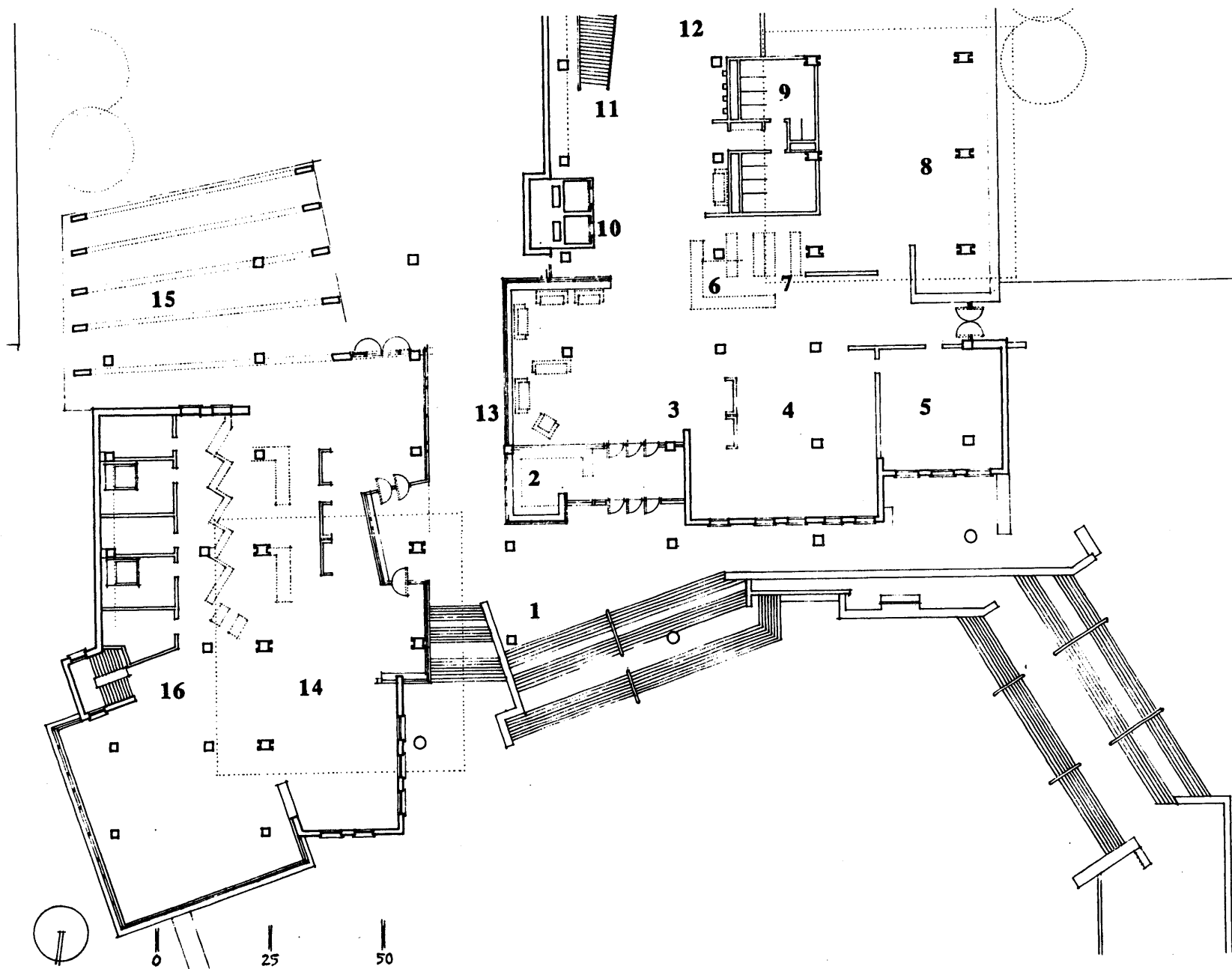


THE MIT MUSEUM

The main building defining the institutional character of the plaza is the MIT Museum, which incorporates the information center and a cafeteria.

Plan of entrance zone

- | | |
|----|--------------------------------|
| 1 | Main entrance |
| 2 | Airlock / Sitting area |
| 3 | Lobby |
| 4 | MIT Museum Shop |
| 5 | Museum Shop office and storage |
| 6 | Cashiers and Reception |
| 7 | Cloakroom |
| 8 | Offices |
| 9 | Bathrooms |
| 10 | Elevator |
| 11 | Stairs to museum |
| 12 | Information Center |
| 13 | Outside passageway |
| 14 | Cafeteria |
| 15 | Greenhouse / Eating |
| 16 | Stairs to mezzanine |



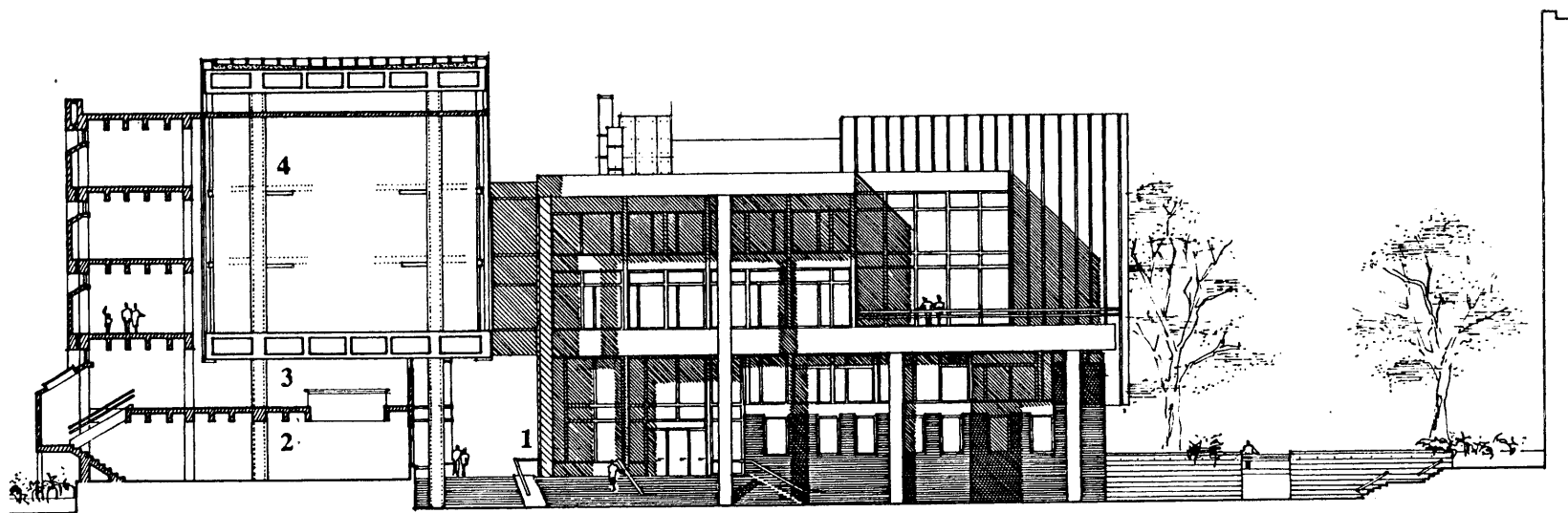
Organization

The first two floors of the museum are occupied by the information center in the west wing and by the cafeteria in the east wing. These two elements are united above by the museum, which shares the main entrance with the information center.

Most of the exhibits are housed in the two 55' cubes of the west wing, while the third cube serves as a performance area. These three containments offer complete environmental control for the permanent and changing exhibits. They are connected by large horizontal planes which in contrast are light-filled and public. They serve as additional exhibit space and public places within the museum. Most of the public functions are grouped on the north side of the building, protected from the direct sun and offering a direct visual connection to the plaza below.

North elevation cutting through east wing

- 1 Main entrance
- 2 Cafeteria
- 3 Mezzanine of cafeteria
- 4 Performance cube



Structure

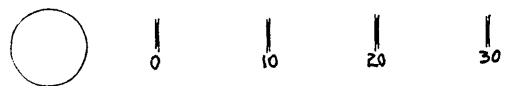
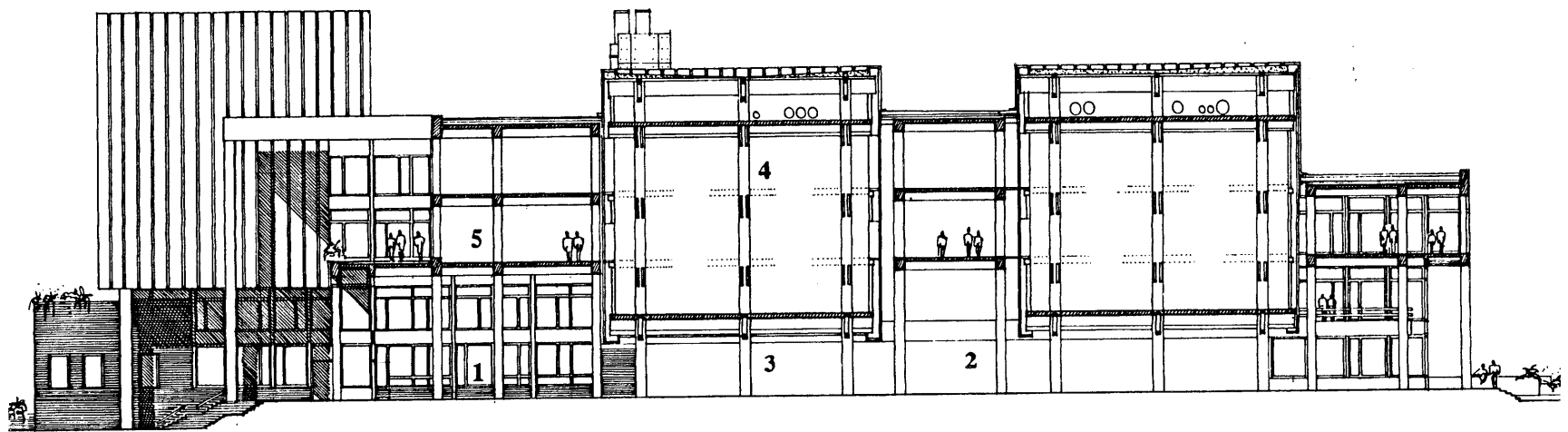
The basic structure of the museum is concrete post and beam system with joists. The cubes establish a separate order but with same axes as the basic system. The main body of the cubes is hung from the large trusses below which the mechanical equipment of the HVAC is concealed.

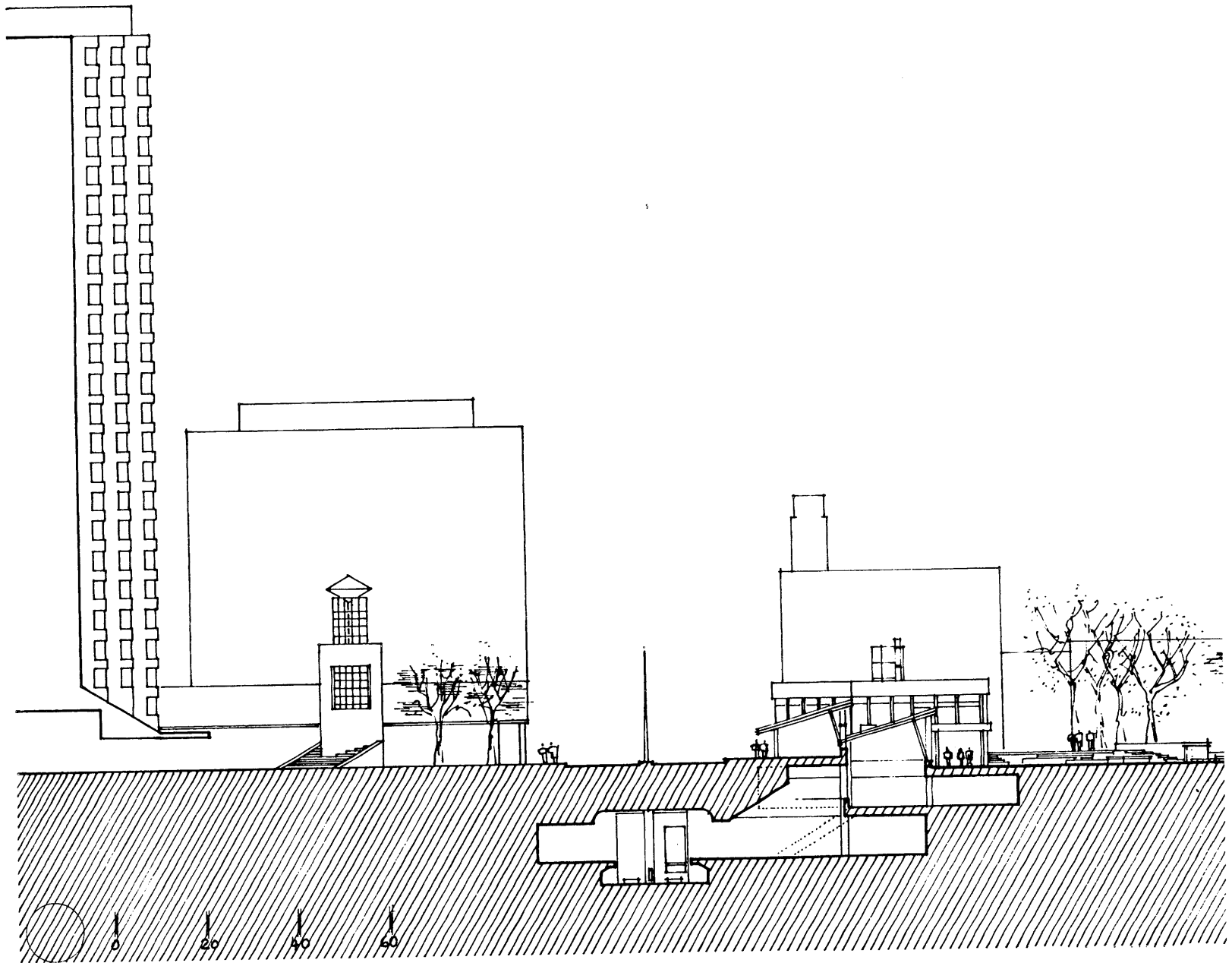
The inside of each cube is free apart from the six columns. Prefabricated floor and wall panels can be arranged to accommodate the various events and exhibits. The outside face of the cubes is covered with metal siding.

The fenestration is relatively open and permeable on the north side, but more contained on the south. The window panels of the main lobby of the museum can be disassembled during summer months to let fresh air circulate in the building. During this time the museum would act in active relation with the plaza.

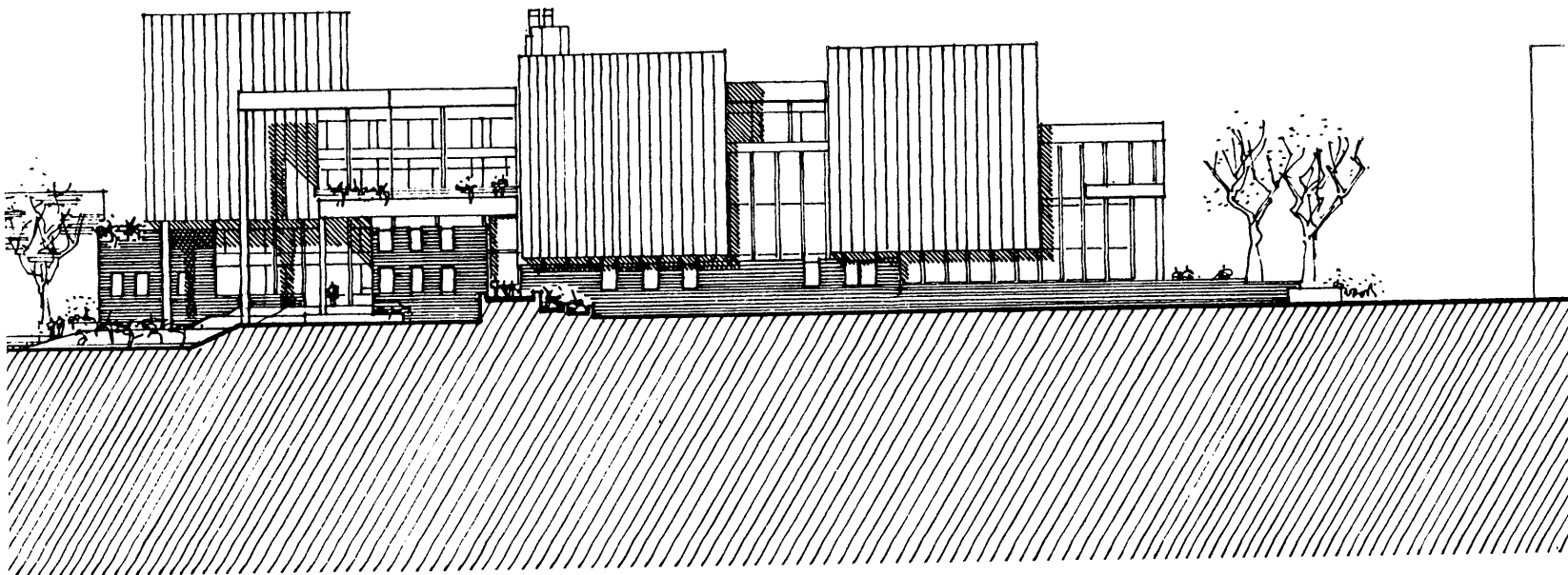
Section through west wing showing partial elevation

- 1 Lobby
- 2 Information center
- 3 Offices
- 4 Exhibit cubes
- 5 Main lobby of museum

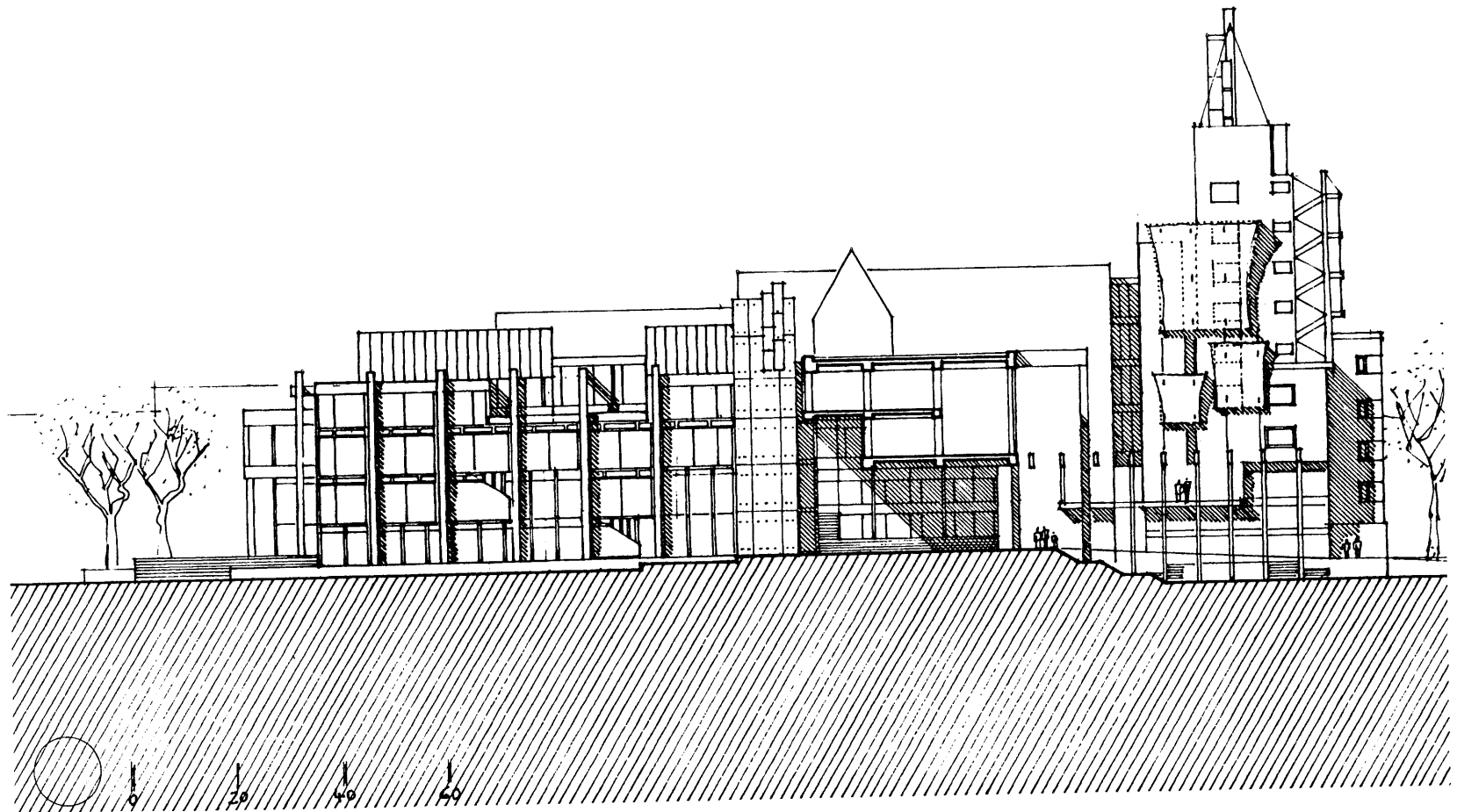


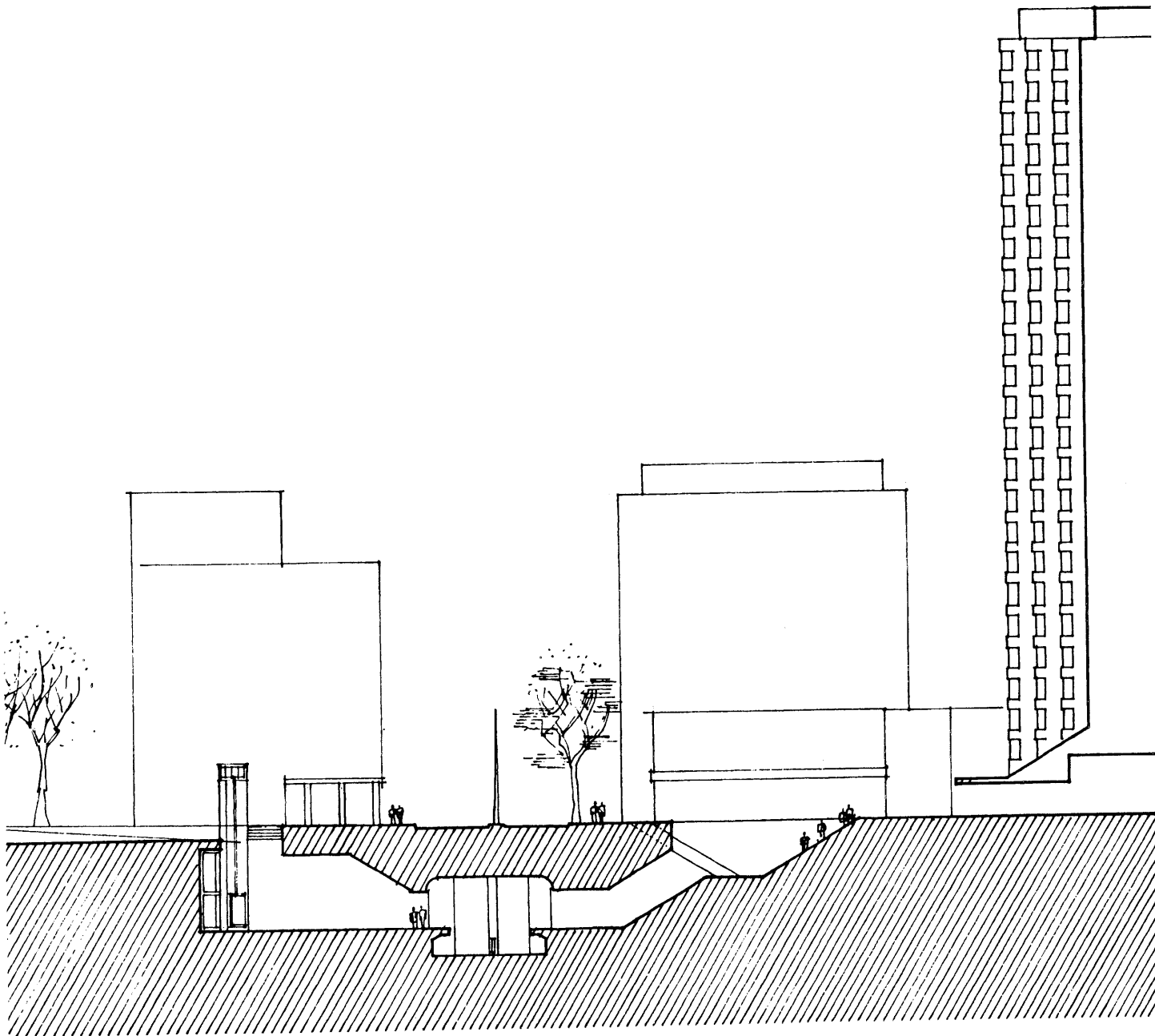


76
Section through site looking East
east elevation of museum
underground shopping area
subway entrance

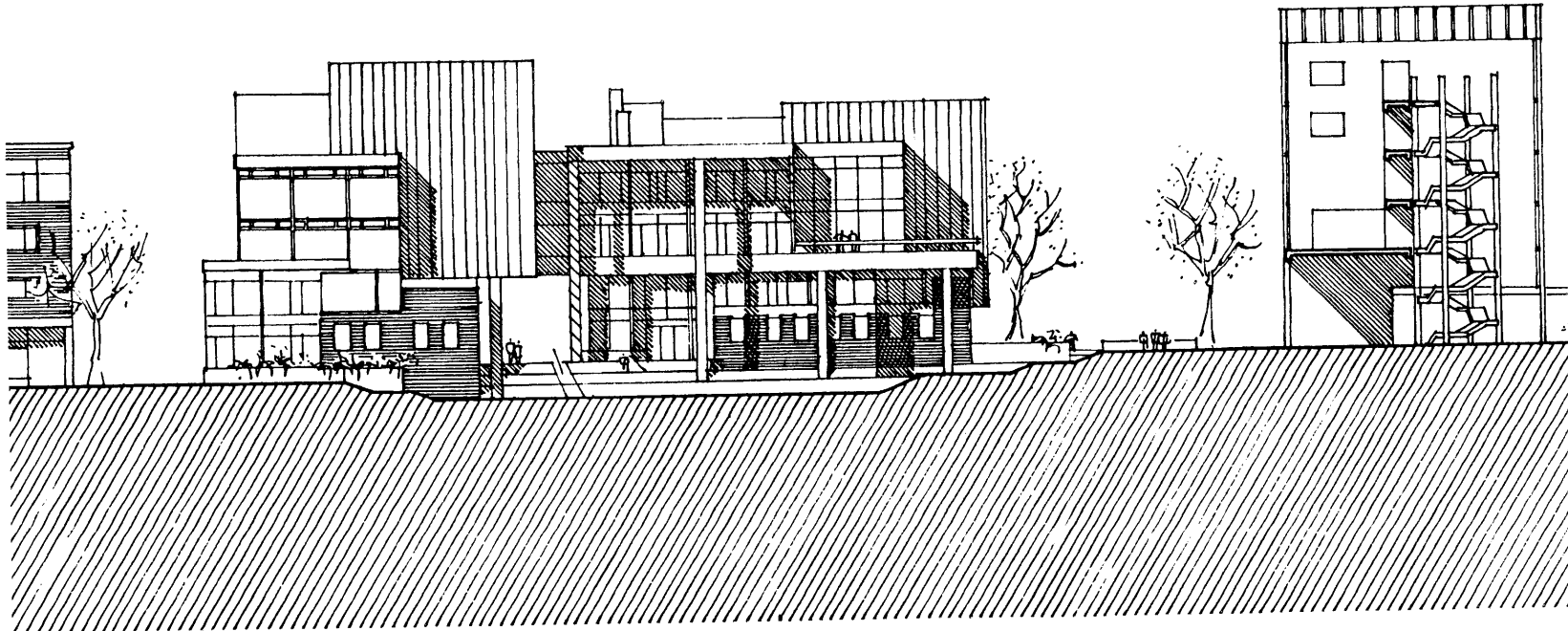


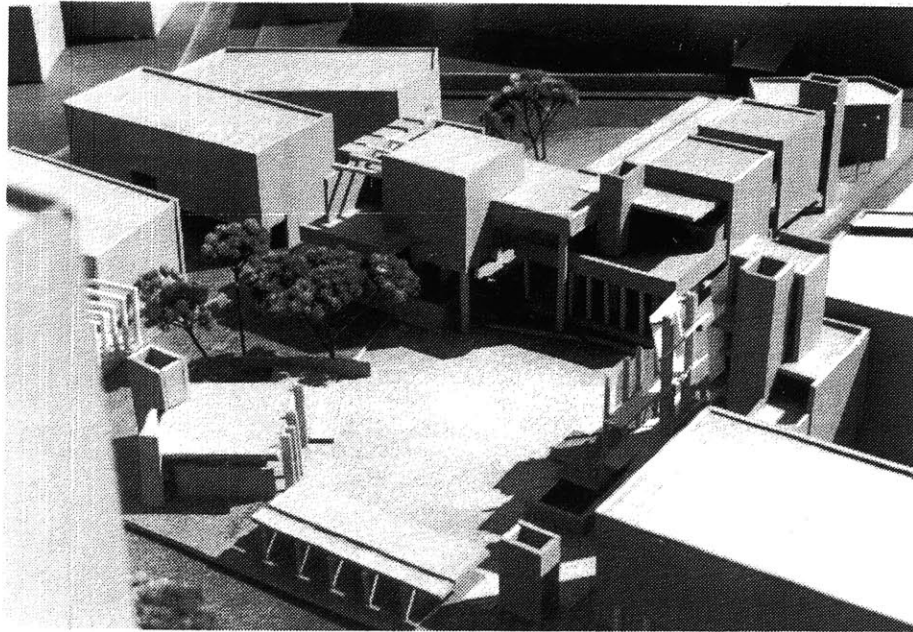
77
Section through site looking West
west elevation of museum
passage between information
center and cafeteria



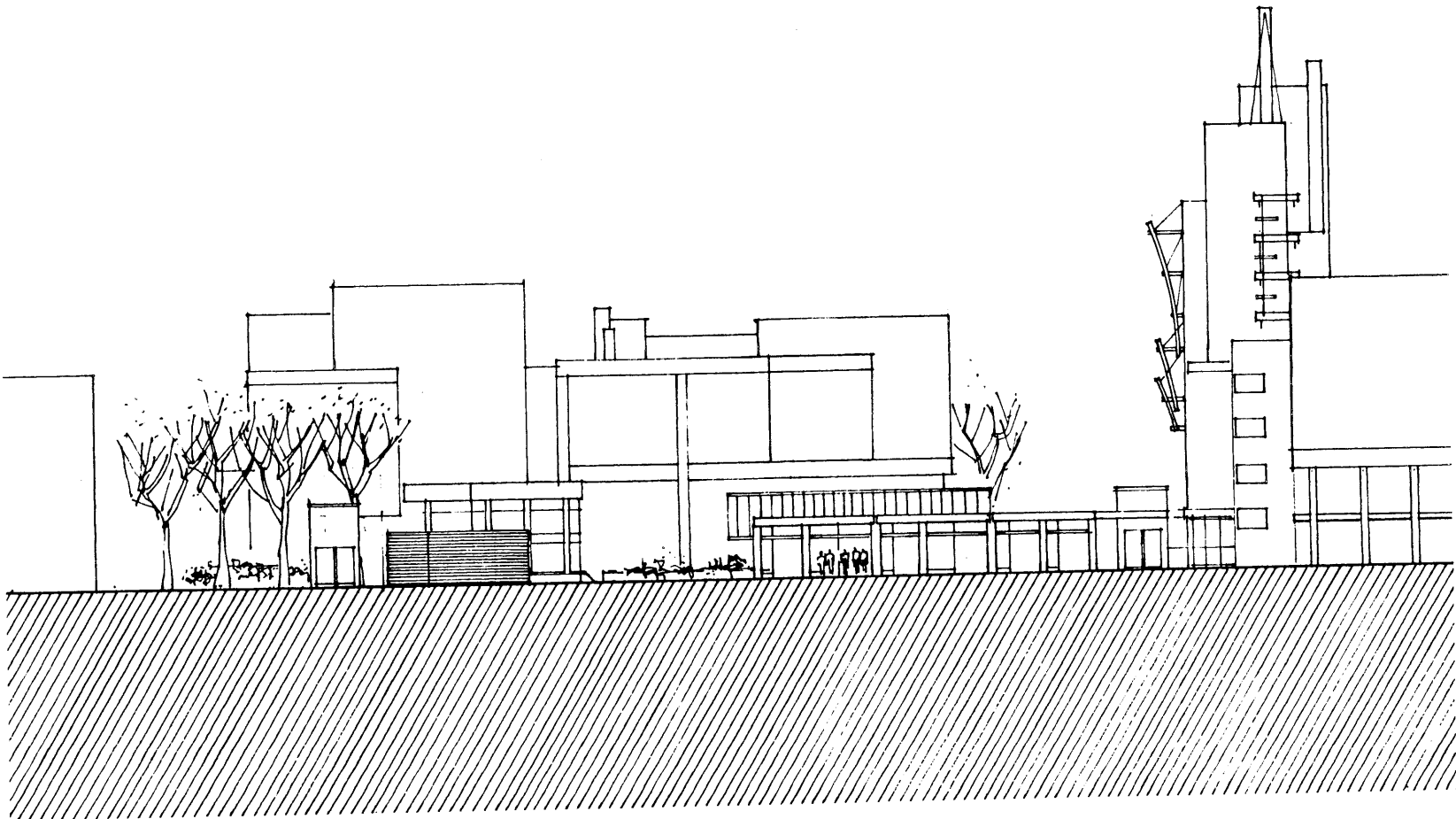


78
Section through site looking South
south elevation of museum
lobby of Medical building





79
South side elevation of Main Street
tower and media screen
in the background



Appendix 1.

Article from MIT Tech Talk, Wednesday, Jan. 27, 1993

MIT MUSEUM ACQUIRES HOLOGRAPHY COLLECTION
by Charles H. Ball
News Office

The MIT Museum has obtained the world's premier collection of historical, technical and artistic holography.

The announcement of the acquisition was made by Warren A. Seamans, the museum director, and by Dr. Stephen A. Benton, Allen Professor of Media Arts and sciences in MIT's Media Laboratory and a leading researcher in holography and 3-D imaging.

The collection was acquired at bankruptcy auction from the Museum of Holography of New York City for \$180,000, Mr. Seamans said. The funds were provided by a "wide variety of donors," he said, "people who did not want to see the collection broken up."

"We are very pleased that this outstanding collection, of great historical and artistic value, has found a permanent and safe home where it can be enjoyed by new audiences," Mr. Seamans said. "And we are particularly pleased that this home is at MIT, where so much working holography has gone on in recent years, especially at the Media Laboratory and at the Center for Advanced Visual Studies.

Bidders from across the United States, and from England, France and Germany, were on hand for the auction. They included small collectors hoping to obtain individual pieces, but MIT's bulk bid - one of the three - won out because it was slightly greater than the sum of the bids on the individual items.

"More than 100 bidding tickets had been given out and bidding was vigorous and spirited," Mr. Seamans said, "but we had done our homework, going to New York prior to the auction to examine and price the collection, and we were delighted that our bid was accepted."

Both Mr. Seamans and Professor Benton said that they had set out with the idea of preserving the collection in

its entirety. "The collection could have gone 100 different ways," Professor Benton said. In a letter to the International Working Group on Holography, Professor Benton noted that the collection was "intact and safe."

The collection includes 341 lots of individual or grouped pieces - about 1,500 pieces in all. "Some fingering damage was suffered by some of the less-well protected pieces," Professor Benton said, "but in general the collection is in good shape."

The publication Holography Marketplace has described the collection as "the world's largest," noting that it includes many important archival materials. Another publication, The Official Museum Director, notes that the collection includes the first laser hologram, first white-light hologram, and early examples of reflection and internal holography.

Mr. Seamans said it includes documentary material from the laboratory of the inventor of holography, the late Dennis Gabor, who was awarded a Nobel Prize in physics in 1971 for his work in the field. The relatively modern science of holography - particularly computer generated holography - has applications in many areas, such as medicine, design and manufacturing.

Mr. Seamans said the collection has been shipped to Cambridge, where it will be cleaned up and catalogued. The museum has had several exhibitions of holography in recent years, primarily works from the Media Laboratory's Spatial Imaging Group and the Center for Advanced Visual Studies.

"This is a tremendous collection," Mr. Seamans said, adding that a "reunion exhibition" is being planned for the newly acquired collection, possibly as early as the fall of 1993.

The MIT Museum is located at 265 Massachusetts Avenue in Cambridge. It has a large exhibition area of more than 10,000 square feet - and two galleries elsewhere on campus - that feature exhibitions of arts/ science-related works, as well as artifacts from MIT's own history.

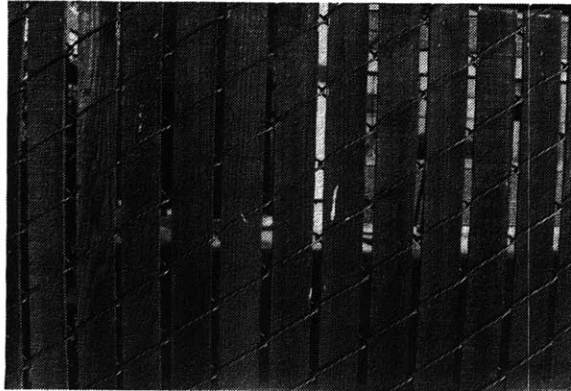


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